

Action Now: Classroom Ready Teachers



Teacher Education Ministerial Advisory Group
December 2014

Action Now: Classroom Ready Teachers

Teacher Education Ministerial Advisory Group
December 2014

Advisory Group Members

Greg Craven, Chair
Kim Beswick
John Fleming
Trevor Fletcher
Michelle Green
Ben Jensen
Eeva Leinonen
Field Rickards

ISBN

978-1-74361-872-1 Teacher Education Ministerial Advisory Group Final Report (PRINT)

978-1-74361-873-8 Teacher Education Ministerial Advisory Group Final Report (PDF)

978-1-74361-874-5 Teacher Education Ministerial Advisory Group Final Report (DOCX)



Any material protected by a trade mark and where otherwise noted all material presented in this document is provided under a Creative Commons Attribution 3.0 Australia (<http://creativecommons.org/licenses/by/3.0/au/>) licence.

The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full legal code for the CC BY 3.0 AU licence (<http://creativecommons.org/licenses/by/3.0/au/legalcode>).

The document must be attributed as the Action Now: Classroom Ready Teachers

Disclaimer:

The material contained in this report has been developed by the Teacher Education Ministerial Advisory Group. The views and opinions expressed in the materials do not necessarily reflect the views of or have the endorsement of the Australian Government or of any Minister, or indicate the Australian Government's commitment to a particular course of action. The Australian Government and the Teacher Education Ministerial Advisory Group accept no responsibility for the accuracy or completeness of the contents and accept no liability in respect of the material contained in the report.

The report may be accessed via the Department of Education website at:

<http://www.studentsfirst.gov.au/teacher-education-ministerial-advisory-group>

Contents

ACRONYMS AND ABBREVIATIONS	VII
KEY DIRECTIONS	X
EXECUTIVE SUMMARY	XI
RECOMMENDATIONS	XIV
SPECIFIC FINDINGS	XVIII
1. REFORM OF INITIAL TEACHER EDUCATION IN AUSTRALIA	1
1.1 Imperative for reform	1
1.1.1 Lifting student outcomes	2
1.1.2 Building on national reform to date	2
1.1.3 Appetite for change	2
1.1.4 Impact of higher education reforms	3
1.2 Current snapshot	3
1.2.1 Australian Institute for Teaching and School Leadership	3
1.2.2 Standards for the profession	3
1.2.3 Higher education context	4
1.3 Driving reform	5
1.4 Areas of focus	6
2. RAISING THE QUALITY OF INITIAL TEACHER EDUCATION	7
2.1 Quality assurance through program accreditation	7
2.1.1 Current practice in program accreditation	7
2.1.2 Stakeholder views on program accreditation	8
2.1.3 Research and international practice	8
2.1.4 Strengthening program accreditation	9
2.2 Suitability and selection of pre-service teachers	11
2.2.1 Current selection practices	11
2.2.2 Stakeholder views on suitability and selection	12
2.2.3 Research and international practice	12
2.2.4 Improving pre-service teacher selection	13

3. PREPARING EFFECTIVE TEACHERS—INTEGRATION OF THEORY AND PRACTICE	15
3.1 What providers teach—areas of concern	15
3.1.1 Evidence-based teaching practice	15
3.1.2 Preparation for student diversity	16
3.1.3 Using assessment for student learning	17
3.1.4 Content knowledge and pedagogy	18
3.1.5 Teaching in specific areas	18
3.1.6 Engaging with school communities	21
3.1.7 Strengthening what providers teach	21
3.2 Integrating theory and practice	22
3.2.1 Current practice in professional experience	22
3.2.2 Challenges of providing professional experience	23
3.2.3 Integrating academic and professional learning	24
3.2.4 Strengthening professional experience	27
4. ASSURING CLASSROOM READINESS	29
4.1 Classroom readiness	29
4.1.1 Current assessment practices	29
4.1.2 Stakeholder views on classroom readiness	30
4.2 Examples of good practice in graduate assessment	31
4.2.1 International practice	31
4.2.2 Innovative Australian models of graduate assessment	32
4.2.3 Graduate assessment in other professions	32
4.3 Strengthening assurance of classroom readiness	33
5. SUPPORTING BEGINNING TEACHERS	35
5.1 Expectations and support of beginning teachers	35
5.1.1 Current induction practices	35
5.1.2 Stakeholder views on induction	36
5.2 Research and international practice	38
5.3 Improving induction for beginning teachers	39

6. STRENGTHENING NATIONAL CAPABILITY	41
6.1 National research and evidence base	41
6.1.1 Key issues	41
6.1.2 Stakeholder views on research	42
6.1.3 International practice	42
6.1.4 Building a national research base	42
6.1.5 Sharing innovation	43
6.2 Workforce planning	44
6.2.1 Key issues	44
6.2.2 Specific workforce challenges	45
6.2.3 Stakeholder views on workforce data	46
6.2.4 Improving workforce planning	47
7. ACHIEVING REAL CHANGE	49
7.1 The impetus for a national response	49
7.2 Working together	49
7.2.1 Higher education providers	50
7.2.2 Australian Government	50
7.2.3 All education ministers	50
7.2.4 Australian Government with all education sectors	50
7.3 Conclusion	51
APPENDICES	52
Appendix A: Terms of Reference for the Teacher Education Ministerial Advisory Group	52
Appendix B: Advisory Group process and consultation	53
Appendix C: Organisations consulted during public consultation	54
Appendix D: Public submissions	55
Appendix E: Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures	59
Appendix F: Australia's school students	83
Appendix G: Initial teacher education students	84
Appendix H: Australia's teachers	85
GLOSSARY	87
REFERENCES	90

Tables

Table 1: School student enrolments in Australia, by state and sector, 2013	83
Table 2: Initial teacher education enrolments, all students and commencements, 2013	84
Table 3: Full-time equivalent teaching staff in Australia, by state and sector, 2013	85

Figures

Figure 1: Proportions of teachers and leaders by years of teaching experience	86
---	----

Acronyms and abbreviations

Accreditation Standards	Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures
Advisory Group	Teacher Education Ministerial Advisory Group
AITSL	Australian Institute for Teaching and School Leadership
AQF	Australian Qualifications Framework
ATAR	Australian Tertiary Admission Rank
CAEP	Council for the Accreditation of Education Preparation
CSPs	Commonwealth Supported Places
NTWD	National Teaching Workforce Dataset
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
Professional Standards	Australian Professional Standards for Teachers
SiAS	Staff in Australia's Schools survey

The Hon Christopher Pyne MP
Minister for Education
Parliament House
CANBERRA ACT 2600

8 December 2014

Dear Minister

On 19 February 2014, you appointed the Teacher Education Ministerial Advisory Group to make recommendations on how initial teacher education in Australia could be improved to better prepare new teachers with the practical skills needed for the classroom.

I note that the report has the unanimous and enthusiastic support, in respect to each of its findings and recommendations, of every member of the group.

In conducting our work, we have kept a solid focus on student outcomes as the fundamental driver for teacher quality. Teachers matter. They deserve the very best preparation so that they can be successful from their first day in the classroom. Strengthening initial teacher education is critical to ensure that the quality of Australian teaching is world class.

Our examination of initial teacher education in Australia involved consideration of wide-ranging evidence and research. We received more than 170 submissions and met with a number of representatives from the education community, including initial teacher education providers, professional organisations and teacher employers. The significant interest in initial teacher education highlights the importance of this area and an appetite for change.

Through this process we looked at better ways to integrate the theory and practice components of initial teacher education. We considered suitability and selection for entry to programs through to assurance of classroom readiness for graduation. We also considered support for graduate teachers once they enter the profession. Importantly, this analysis of initial teacher education captured the foundation of: pedagogical approaches; subject content knowledge; and professional experience (practicum).

The recommendations contained in this report have been chosen on the basis that they are practical, based in evidence and calculated to succeed.

We have concluded that the single most important action to be pursued is the integrated delivery of initial teacher education. This can be achieved through close partnerships between providers, school systems and schools, and underpins improvement to all aspects of the preparation of teachers.

We are convinced that the recommendations in this report, implemented without delay and through strong collaborative effort, are the best way forward in developing a national profession which delivers effective teaching for every Australian school student.

On behalf of the Advisory Group I am pleased to present our report, *Action Now: Classroom Ready Teachers*. I note this report is complemented by the *Review of the Australian Curriculum: Final Report*.

I am most grateful for the expertise of my Advisory Group colleagues: Kim Beswick, John Fleming, Trevor Fletcher, Michelle Green, Ben Jensen, Eeva Leinonen and Field Rickards. I would like to thank them for their time and valuable contribution to the development of this report.

We thank you for the opportunity to conduct this important work.



Yours sincerely
Professor Greg Craven
Chair

Key directions

1. National program accreditation

An overhauled national accreditation process for initial teacher education programs administered by a national regulator. Full program accreditation contingent upon robust evidence of successful graduate outcomes against the Professional Standards.

2. Rigorous program accreditation

Strengthened accreditation requiring providers to demonstrate that program design and delivery is underpinned by solid research and includes measures of program effectiveness.

3. Transparent selection for entry

Entrants to initial teacher education programs selected through sophisticated approaches that consider both academic skills and desirable personal attributes for teaching. Approaches to selection published by all providers.

4. An integrated system

Higher education providers, school systems and schools working together to achieve strong graduate and student outcomes. Partnerships ensuring initial teacher education meets the needs of employers and schools. Professional experience integrated with provider-based learning.

5. Evidence of classroom readiness

Pre-service teachers building a Portfolio of Evidence throughout their initial teacher education program to demonstrate that they reach classroom readiness and eligibility for provisional registration. Beginning teachers add to their Portfolio of Evidence to achieve full registration.

6. Teacher pre-registration

Pre-registration enabling entrants to initial teacher education to be recognised as members of the teaching profession from the beginning of their program.

Executive summary

The evidence is clear: enhancing the capability of teachers is vital to raising the overall quality of Australia's school system and lifting student outcomes. Action to improve the quality of teachers in Australian schools must begin when they are first prepared for the profession.

Initial teacher education in Australia has been the subject of a large number of reviews, but the outcomes have had limited impact on the policy and practice of developing new teachers. The goal of the Teacher Education Ministerial Advisory Group is to provide strong, implementable options to initiate genuine national reform.

It is clear that there is significant public concern over the quality of initial teacher education in Australia. This concern is intensified by both media comment and political intervention.

There is much debate over entrant selection and the desirable balance between academic skills and personal characteristics. There are mixed views on what teachers need to know, how they should teach, and how best to integrate theory and practice to have a measurable impact on student learning. Debate extends to assessment of classroom readiness and support for graduate teachers once they enter the profession.

The Advisory Group found a high degree of variability in the quality of practice across initial teacher education in Australia. There are examples of excellent practice, where providers deliver evidence-backed programs that are constantly reviewed and improved. Disturbingly, there are also significant pockets of objectively poor practice, and these must be addressed decisively. It is the Advisory Group's view that the standard across *all* initial teacher education programs must be lifted. A culture of high expectations, best practices and continuous improvement is necessary to give Australian parents, students and the community confidence in those delivering school education.

Higher education providers and the teaching profession must together embrace the opportunity to fully participate in a reformed, integrated system of initial teacher education. This participation will be essential in embedding the reforms necessary to deliver high-quality teaching in every Australian school.

The Australian Government has a vital role to play in driving this structural and cultural change. National leadership is needed to bring providers, the government and non-government sectors and schools together to transform initial teacher education, so that every Australian school student has an effective teacher drawn from a high-quality, national teaching profession.

Key findings

The Advisory Group has reached unanimous agreement in making the following key findings of fact.

National standards are weakly applied—The Australian Professional Standards for Teachers (Professional Standards) and the Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures provide a strong foundation for quality assurance and improvement to initial teacher education. However, they are not being effectively applied and implementation timeframes are too slow.

Need to lift public confidence in initial teacher education—Australians are not confident that all entrants to initial teacher education are the best fit for teaching. This includes the balance of academic skills and personal characteristics needed to be suitable for teaching.

Evidence of poor practice in a number of programs—Not all initial teacher education programs are equipping graduates with the content knowledge, evidence-based teaching strategies and skills they need to respond to different student learning needs.

Insufficient integration of teacher education providers with schools and systems—Providers, school systems and schools are not effectively working together in the development of new teachers. This is particularly evident in the professional experience component of initial teacher education, which is critical for the translation of theory into practice.

Inadequate application of standards—Initial teacher education providers are not rigorously or consistently assessing the classroom readiness of their pre-service teachers against the Professional Standards.

Insufficient professional support for beginning teachers—Not all graduate teachers are adequately supported once they enter the profession. This means a number of beginning teachers do not reach their full potential, and some may choose to leave the profession.

Gaps in crucial information, including workforce data—Useful information on the effectiveness of initial teacher education and students entering and graduating from initial teacher education is lacking. This hinders both continuous improvement, and workforce planning, including the ability to address shortages in specialist subject areas.

All of these key findings are addressed in the report.

Fundamental principles

In writing its report, addressing its findings and formulating its recommendations the Advisory Group has applied the following fundamental principles, which it believes go to the heart of high-quality initial teacher education.

Integration—Initial teacher education providers, teacher employers and schools must share a commitment to improve initial teacher education and work in partnership to achieve strong graduate and student outcomes. All academic teacher education should be integrated with practice in schools so that initial teacher education becomes a fused and mutually reinforcing experience of higher education and professional learning.

Assurance—A relentless focus on quality assurance and improvement across all elements of initial teacher education is vital in assuring the quality of teachers and the education they deliver. Quality assurance processes should be rigorously applied. Accreditation regimes should accredit good programs and must ensure that poor-quality programs are not accredited or reaccredited.

Evidence—Evidence must underpin all elements of initial teacher education, from the design and delivery of programs to the teaching practices taught within programs. This extends to a clear demonstration of evidence of course outcomes and, in turn, student outcomes in the classroom.

Transparency—Pre-service teachers should be provided with a clear understanding of what to expect from initial teacher education and, in turn, what is expected of them throughout their course. There should be greater transparency across all elements of initial teacher education, from entrant selection to program outcomes.

Key proposals: A new approach to initial teacher education

On the basis of its findings and the application of its fundamental principles, the Advisory Group unanimously finds that both structural and cultural change is needed to strengthen initial teacher education in Australia. It is absolutely critical that providers, school systems and schools work together to improve all the elements of initial teacher education.

The following key proposals are made.

1. A strengthened national quality assurance process

There needs to be greater assurance that all initial teacher education programs are being rigorously assessed to guarantee the quality of graduates. The design and delivery of initial teacher education programs must be based on solid research and best practice. Ongoing monitoring and examination of the impact of programs on teacher capability and effectiveness is essential to continuous improvement and quality assurance. Programs that do not produce effective teachers should not continue to operate.

There is significant evidence of system failure in this context.

To address this, a strengthened accreditation process for initial teacher education should be administered by a national initial teacher education regulator. To gain accreditation, providers should be required to provide convincing evidence of the impact of their initial teacher education programs on pre-service teachers and student learning. Importantly, this should include robust evidence that all graduate teachers meet the Graduate level of the Professional Standards. Providers should be required to publish information showing the success and outcomes of each graduating cohort to improve public confidence in graduate teachers.

2. Sophisticated and transparent selection for entry to teaching

There is a unanimous view that we want the best people to go into initial teacher education. It is clear that teaching demands both academic skills and personal qualities to engage students and foster learning. These components are critical to ensure entrants to initial teacher education have the best chance of success in a teaching career. By selecting the right people, the investment of providers, school systems and schools in developing these new teachers will be put to best use.

To achieve this, all providers must use a blend of sophisticated approaches to select entrants that have both the academic skills—including literacy and numeracy skills—and the desirable personal attributes for teaching. Providers will be required to publish their selection processes for all initial teacher education programs to justify that they are selecting those best suited to the teaching profession on an appropriate basis. Students and future employers will have greater confidence in providers if these public processes are transparent.

3. Integration of theory and practice

Most importantly, theory and practice in initial teacher education must be inseparable and mutually reinforced in all program components. Pre-service teachers must develop a thorough knowledge of the content they will go on to teach, and a solid understanding of teaching practices that are proven to make a difference to student learning. Professional experience placements must provide real opportunities for pre-service teachers to integrate theory and practice.

To accomplish this, providers, working with schools, will be required to establish structured and mutually beneficial partnerships. These partnerships will set criteria for professional experience across a range of classroom situations, and include mentoring and support for pre-service teachers to continually reflect on their own practice. Providers will also be required to ensure that each primary pre-service teacher graduates with a subject specialisation, giving priority to science, mathematics and languages.

4. Robust assurance of classroom readiness

Australian parents, students and communities must be confident that all initial teacher education graduates have been rigorously assessed and found to be ready for the classroom. To be effective, this assessment cannot be a simple test or certificate. Genuine assessment of classroom readiness must capture the complex skills required for teaching. Beginning teachers must be supported to reach their full potential following entry to the profession.

To achieve this, robust evidence will be required of providers to show that their graduates have the knowledge and teaching practices needed to be classroom ready, against a national assessment framework. Pre-service teachers will also be required to collect evidence that they have the skills and capabilities for both graduation and employment. Graduate teachers must be supported to reach proficiency once they enter the profession.

5. National research and capability

There is a need for national leadership to build Australia's capability to drive strong, evidence-based practice in initial teacher education and to manage its teaching workforce. Better evidence of the effectiveness of initial teacher education in the Australian context is needed to inform innovative program design and delivery, and the continued growth of teaching as a profession. To meet the needs of Australian classrooms, providers and school systems need clear information on the composition of students in initial teacher education programs and teachers in the workforce.

To achieve this, a strengthened teacher registration system should be introduced. A requirement for pre-service teachers to register as part of the profession upon entry to initial teacher education will contribute both to their commitment to the profession and to workforce planning. The Australian Institute for Teaching and School Leadership should expand its functions to include provision of leadership in national research on teacher education effectiveness, to ensure that the Australian teaching profession is able to continually improve its practice.

These key proposals are supported by detailed recommendations.

Recommendations

The Advisory Group recommends:

Recommendation 1

Standards for the quality of initial teacher education be set high, programs rigorously assessed and requirements made transparent.

Recommendation 2

The Australian Government acts on the sense of urgency to immediately commence implementing actions to lift the quality of initial teacher education.

Recommendation 3

The Australian Institute for Teaching and School Leadership be reconstituted to undertake a stronger role to ensure high standards of initial teacher education in Australia.

Recommendation 4

The Australian Government establish a national initial teacher education regulator through a reconstituted Australian Institute for Teaching and School Leadership to overhaul and manage the accreditation of initial teacher education programs, and work with the states and territories to ensure rigorous accreditation processes operate effectively with teacher registration.

Recommendation 5

The national initial teacher education regulator assess evidence that demonstrates the achievement of graduate outcomes.

Recommendation 6

Initial accreditation of programs requires higher education providers to demonstrate that their programs have evidence-based pedagogical approaches, effective integration of professional experience, rigorous and iterative assessment of pre-service teachers throughout their education, and final assessments that ensure pre-service teachers are classroom ready. Higher education providers provide a set of measures that assess the effectiveness of their programs in achieving successful graduate outcomes.

Recommendation 7

Initial accreditation of programs be considered provisional and full accreditation only occur once higher education providers have developed sufficient evidence to demonstrate successful graduate outcomes. Higher education providers build evidence on a continual basis that captures each cohort of pre-service teachers.

Recommendation 8

Accreditation panel members be appropriately qualified and skilled, and supported by the national initial teacher education regulator.

Recommendation 9

Higher education providers that can demonstrate evidence of successful graduate outcomes at reaccreditation be monitored through a 'light touch' process.

Recommendation 10

Higher education providers select the best candidates into teaching using sophisticated approaches that ensure initial teacher education students possess the required academic skills and personal characteristics to become a successful teacher.

Recommendation 11

Higher education providers publish all information necessary to ensure transparent and justifiable selection processes for entry into initial teacher education programs, including details of Australian Tertiary Admission Rank bonus schemes, forced offers and number of offers below any published cut-off.

Recommendation 12

Higher education providers identify entrants who may need additional support to meet the academic requirements of the program, and provide them with targeted support to ensure all pre-service teachers have the academic skills needed to become effective teachers.

Recommendation 13

Higher education providers use the national literacy and numeracy test to demonstrate that all preservice teachers are within the top 30 per cent of the population in personal literacy and numeracy.

Recommendation 14

Higher education providers deliver evidence-based content focused on the depth of subject knowledge and range of pedagogical approaches that enable pre-service teachers to make a positive impact on the learning of all students.

Recommendation 15

Higher education providers equip pre-service teachers with data collection and analysis skills to assess the learning needs of all students.

Recommendation 16

Higher education providers equip pre-service teachers with the skills to effectively engage with parents about the progress of their children.

Recommendation 17

Higher education providers equip all primary and secondary pre-service teachers with a thorough understanding of the fundamentals of teaching literacy and numeracy.

Recommendation 18

Higher education providers equip all primary pre-service teachers with at least one subject specialisation, prioritising science, mathematics or a language. Providers publish specialisations available and numbers of graduates from these programs.

Recommendation 19

Higher education providers deliver integrated and structured professional experience throughout initial teacher education programs through formalised partnership agreements with schools.

Recommendation 20

Higher education providers guarantee that sufficient placements of appropriate timing and length are available for all pre-service teachers.

Recommendation 21

Higher education providers ensure pre-service teachers have early opportunities to assess their suitability for teaching, including through exposure to the classroom.

Recommendation 22

Higher education providers ensure staff delivering initial teacher education are appropriately qualified, with a proportion having contemporary school teaching experience.

Recommendation 23

Systems/schools required to use the *Australian Professional Standards for Teachers* in identifying highly skilled teachers to supervise professional experience, and work with higher education providers to ensure rigorous, iterative and agreed assessment of pre-service teachers. The Australian Institute for Teaching and School Leadership develop guidelines to ensure supervising teachers have the skills required to be effective in the role.

Recommendation 24

School leaders actively lead the integration of pre-service teachers in the activities and culture of their school.

Recommendation 25

Higher education providers assess all pre-service teachers against the Graduate level of the Professional Standards.

Recommendation 26

The Australian Institute for Teaching and School Leadership develop a national assessment framework, including requirements for a Portfolio of Evidence, to support higher education providers and schools to consistently assess the classroom readiness of pre-service teachers throughout the duration of their program.

Recommendation 27

Pre-service teachers develop a Portfolio of Evidence to demonstrate their achievement of the Graduate level of the Professional Standards.

Recommendation 28

Higher education providers and schools work together to assist pre-service teachers to develop and collect sophisticated evidence of their teaching ability and their impact on student learning for their Portfolio of Evidence.

Recommendation 29

The Australian Institute for Teaching and School Leadership undertake a review of the Graduate level of the Professional Standards to ensure that the knowledge, skills and capabilities required of graduates align with the knowledge, skills and capabilities beginning teachers need for the classroom.

Recommendation 30

The Australian Institute for Teaching and School Leadership develop national guidelines for beginning teacher induction that will guide consistent implementation of effective induction programs.

Recommendation 31

School systems and employers provide effective induction for all beginning teachers, including those employed on a short-term or casual basis.

Recommendation 32

Schools identify highly skilled teachers to mentor, assess and guide beginning teachers from provisional registration to full registration.

Recommendation 33

Beginning teachers build on their Portfolio of Evidence to reach full registration at the Proficient level of the Professional Standards.

Recommendation 34

The Australian Institute for Teaching and School Leadership's functions be reconstituted and expanded to provide a national focus on research into teacher education, including into the effectiveness of teacher preparation and the promotion of innovative practice.

Recommendation 35

Higher education providers pre-register all entrants to initial teacher education programs, on a nationally consistent basis.

Recommendation 36

Teacher regulatory authorities collect robust workforce data on a nationally consistent basis, including areas of specialisation, to inform workforce planning.

Recommendation 37

Teacher regulatory authorities share data to inform a national workforce dataset and contribute to national workforce planning.

Recommendation 38

Higher education providers take into account national workforce needs, in consultation with employers, when making decisions about student intake to better respond to market demand.

Specific findings

Raising the quality of initial teacher education

In relation to initial teacher education program accreditation the Advisory Group found:

- The full impact of the implementation of the Accreditation Standards will not be in place until 2023.
- Applications for accreditation do not require rigorous assessment of evidence to support program design and the outcomes expected of graduates.
- Stakeholders called for greater rigour, transparency and consistency in the accreditation process.
- Internationally there is increasingly rigorous program accreditation requiring provision of research, evidence of program impact and continuous improvement, to provide quality assurance.

In relation to the selection of initial teacher education students the Advisory Group found:

- Some providers publish their Australian Tertiary Admission Rank cut-offs for program entry but these scores do not always reflect the actual intake.
- There are diverse views regarding selection of initial teacher education students and there is strong support for the use of sophisticated processes to select the students who will make the best teachers.
- High performing education systems screen initial teacher education students against criteria they believe will make the best teachers, including academic capability, literacy and numeracy skills and personal characteristics.

Preparing effective teachers—integration of theory and practice

In relation to what teachers need to teach and current related concerns the Advisory Group found:

- There are concerns that initial teacher education programs include content not informed by evidence.
- Teacher education programs are not consistently equipping beginning teachers with the evidence-based strategies and skills needed to respond to diverse student learning needs.
- Providers are not preparing pre-service teachers with the knowledge and skills to use assessment data to inform and improve their teaching practice.
- Beginning teachers need a solid understanding of subject content, pedagogy and pedagogical content knowledge.
- Primary and secondary pre-service teachers should be adequately prepared to use a range of evidence-based strategies to meet student learning needs, particularly in literacy and numeracy.
- There is growing interest in requiring primary teachers to have a specialisation, particularly in science, mathematics or languages other than English.
- Beginning teachers need to be able to effectively engage and communicate with students and their families, particularly in relation to learning progress.

In relation to the provision of professional experience the Advisory Group found:

- Schools, school systems and higher education providers face challenges in ensuring a sufficient number of professional experience placements of appropriate timing and length are available for all pre-service teachers.
- Early and regular professional experiences are regarded as providing the best opportunity for pre-service teachers to demonstrate the practical application of what is being taught, and to assess suitability to teaching.
- The quality of professional experience is limited by a lack of integration of theory and practice, and by a lack of integration of the work of providers and schools.
- Supervising teachers should have the training and skills required to effectively supervise and assess professional experience placements.

Assuring classroom readiness

In relation to classroom readiness the Advisory Group found:

- Pre-service teachers are not consistently assessed to determine whether they have achieved the Graduate level of the Professional Standards at program completion.
- Teacher employers are dissatisfied with the classroom readiness of initial teacher education graduates.
- The Graduate level of the Professional Standards needs to be reviewed regularly to equip beginning teachers to meet the demands of contemporary school environments.
- There is limited integration of assessment between on-campus and in-school learning.
- Stakeholders advocated for strengthened assessment of pre-service teachers to establish readiness for the profession.
- Innovative models for assessment of classroom readiness are increasing but have not been widely implemented.
- Consistent and transparent graduate assessment against an agreed benchmark is a key feature of profession entry requirements both internationally and in comparable professions in Australia.

Supporting beginning teachers through induction

In relation to supporting beginning teachers the Advisory Group found:

- There is no profession-wide approach to supporting teacher development in the important early years in the classroom.
- The quality and quantity of induction support varies across states and territories, sectors and schools.
- Employers and schools are not consistently offering effective support for beginning teachers through their transition to proficiency and full registration.
- Stakeholders have identified a need for improved support for beginning teachers, including mentoring by highly skilled teachers.
- There is concern that induction support is inadequate for beginning teachers in temporary employment and in 'hard to staff' schools.
- Effective induction is critical to successful transition into classroom teaching practice. It includes structured mentoring, observation and feedback.
- High-performing and improving education systems demonstrate a commitment to structured support for beginning teachers in their transition to full professional performance and in doing so, build and sustain a culture of professional responsibility.

Strengthening national capability

In relation to research and evaluation the Advisory Group found:

- There is a lack of research into the effectiveness of initial teacher education in Australia.
- Internationally there is a developing focus on research and evaluation of initial teacher education programs to improve program design and delivery.
- There is a lack of sharing nationally of innovative approaches in initial teacher education.

Workforce planning and challenges

In relation to workforce planning the Advisory Group found:

- Available workforce data are inconsistent, with some employers reporting a significant oversupply of teachers and others reporting ongoing recruitment difficulty.

In relation to specific teacher workforce challenges the Advisory Group found:

- Teacher shortages continue to be reported in the subject areas of science, mathematics and languages, and in 'hard to staff' schools in regional, remote and low socio-economic areas.
- The most common employer response to these shortages is to have teachers work outside their field of expertise. This is likely to have implications for the quality of teaching students are receiving.
- Targeted long-term interventions may be required to attract more quality entrants to address staffing challenges in specialist subject areas.
- Stakeholders report that data collected through current teacher registration processes and requirements could be shared to better support workforce planning and teacher mobility.

1. Reform of initial teacher education in Australia

The Australian Government established the Teacher Education Ministerial Advisory Group (Advisory Group) to provide advice on how initial teacher education programs could be improved to better prepare new teachers with the practical skills needed for the classroom. This review grew out of two clear propositions: that improving the capability of teachers is crucial to lifting student outcomes; and that the Australian community does not have confidence in the quality and effectiveness of new teachers. Action to enhance the capability of Australian teachers and assure public confidence in those delivering school education must begin when teachers are first prepared for the profession.

In examining initial teacher education and formulating its recommendations, the Advisory Group was guided by a number of fundamental principles.

First, the preparation of new teachers is a shared responsibility. Initial teacher education needs to be delivered through close integration of the work of higher education providers, school systems, teacher employers and schools across all sectors. Second, the community must have confidence that the benchmarks and processes that assure the quality of programs will drive improvement and will be rigorously applied. Third, initial teacher education must embrace the use of evidence—from program design and delivery through to the assessment of program and graduate outcomes. Finally, transparency in initial teacher education is needed to support accountability and inform public confidence.

In conducting its work, the Advisory Group maintained that providers need to retain the flexibility to design and deliver diverse and innovative programs. However, they must demonstrate that their programs are high quality, have a positive impact on student learning and respond to the needs of schools and employers.

The challenge is to bring together governments, the Catholic and independent sectors, higher education providers and school systems to build on existing reforms to transform initial teacher education in Australia. This will contribute to a highly respected, high-quality, national teaching profession, which is vital to achieve the student learning outcomes we expect for all Australian students.

1.1 Imperative for reform

There is strong evidence that high-quality teaching is fundamental to student learning, and the biggest in-school factor determining student outcomes.¹ Despite evidence of excellent programs and innovative practice, it is clear that there is significant public concern regarding variability in the quality of teaching in Australian classrooms and the effectiveness of the preparation of new teachers for the profession.

The timing of this review is opportune. There is a solid foundation for reform with the introduction of national standards for the profession and standards for accreditation (see Appendix E), which set the stage for a focus on the quality of teachers in Australian classrooms. Importantly there is significant appetite for change among jurisdictions, universities and teacher educators to improve the standard of preparation of graduates entering the profession. It is imperative that action be taken immediately to harness this momentum.

1 Hattie, J. (2003), Teachers make a difference: What is the research evidence?, Australian Council for Educational Research Annual Conference

1.1.1 Lifting student outcomes

The declining performance of Australian students in international testing has recently driven increasing community debate about the quality of teaching.

Results of the Programme for International Student Assessment (PISA) 2012 show that, although Australian students perform significantly above the Organisation for Economic Cooperation and Development (OECD) average in all three core domains (reading, mathematics and scientific literacy), our performance has declined in both absolute terms and relative to other countries since PISA began in 2000. Between 2009 and 2012, Australia slipped from 15th to 19th in mathematical literacy, 9th to 14th in reading literacy and 10th to 16th in scientific literacy.²

The proportion of Australian students performing at the highest levels of proficiency in PISA has also declined over time, particularly in mathematical and reading literacy. At the same time, the proportion of Australian students failing to meet minimum proficiency standards has increased, particularly in mathematical literacy.

Enhancing the capability of the Australian teaching profession is critical to achieving demonstrable improvement in the outcomes of over 3.5 million students. Appendix F provides further data on Australia's school students.

1.1.2 Building on national reform to date

The recent introduction of the *Australian Professional Standards for Teachers* (Professional Standards) and the *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures* (Accreditation Standards) represents an important step forward in establishing a strong basis for reform.

However, as this report will show, the pace and inconsistency of the implementation of current national reforms needs to be addressed. Even with consistency of implementation, the full effect of current reforms to the accreditation of initial teacher education programs will not be seen in all Australian classrooms before 2023.³

While there is strong support from stakeholders for these reforms, feedback has highlighted that the implementation of the Professional Standards and Accreditation Standards is at a stage that enables stakeholders to identify clear areas for improvement. Without prompt action, the opportunity for this foundation of standards to have a powerful impact on Australia's teaching profession may be lost.

1.1.3 Appetite for change

The Advisory Group acknowledges that some states—such as New South Wales, Victoria, Queensland and South Australia—have recently announced changes to educational policy and jurisdictional reforms in initial teacher education. This is an indication that there is both a strong appetite and a will for reform of initial teacher education.

While there are some points of difference in approaches across jurisdictions, there are areas of commonality that will provide valuable opportunities for collaboration between governments. Broadly the reforms aim to ensure that the right people are going into teaching and that initial teacher education programs produce high-quality graduates. Proposed targeted initiatives include formalised partnerships between higher education providers and schools, streamlined processes for the assessment of professional experience placements, and strengthened governance of initial teacher education programs.

The Advisory Group also acknowledges the strong interest in its considerations from non-government employers and school leaders, universities, deans of teacher education and teacher educators.

This heightened interest from all major stakeholders in using their role to influence the quality of teachers entering the profession provides a prime opportunity for genuine national reform. The Advisory Group believes there is a clear role for the Australian Government to provide national leadership to ensure efforts to drive teacher quality are cohesive and implemented on a consistent timeline.

² Thomson, S., De Bortoli, L. and Buckley, S. (2013), PISA 2012: *How Australia Measures Up*

³ Based on a graduate commencing teaching after completing a four-year degree that achieved accreditation in 2017 and commenced operation in 2018

1.1.4 Impact of higher education reforms

As initial teacher education is delivered through the higher education sector, any changes to higher education have the potential to impact teacher education. As part of the 2014–15 Budget, the Australian Government announced a range of reforms to the higher education system to encourage greater competition and to ensure sustainability for the longer term. These reforms include fee deregulation, an average reduction of 20 per cent to the Commonwealth subsidy paid towards program fees, and the extension of Commonwealth support to all bachelor students studying at registered non-university higher education institutions.

At this stage, the impact of these proposed higher education reforms on initial teacher education is largely unknown and will need to be monitored by policymakers. However, it is likely that deregulation will attract new providers to the market. This reinforces the need to ensure that the agreed national standards are rigorously applied and that reforms elevate and maintain the quality of initial teacher education.

The Advisory Group considers that initial teacher education programs must be adaptable and responsive to any changes to the higher education context while continuing to focus on the quality of their graduates and their responsiveness to employer needs.

1.2 Current snapshot

In developing its findings and formulating its recommendations, the Advisory Group found it is important to understand the complexities of initial teacher education. This includes the current framework of standards for the profession, the context in which initial teacher education operates, and the workforce it feeds into. Considering these elements is essential for informed debate and to make sure proposed solutions are practical and implementable.

1.2.1 Australian Institute for Teaching and School Leadership

The Australian Institute for Teaching and School Leadership (AITSL) was established in 2010 to provide national leadership in promoting excellence in the profession of teaching and school leadership. AITSL is a wholly Commonwealth owned and funded company, with the Commonwealth (represented by the Minister for Education) as the sole member. AITSL is governed by a board of directors and its governance arrangements are structured to ensure engagement with key stakeholders.

AITSL led the development of the Professional Standards and Accreditation Standards. While it now has an ongoing role in the maintenance of these standards, AITSL has no role in regulation to ensure they are rigorously implemented.

1.2.2 Standards for the profession

Australian Professional Standards for Teachers

The Professional Standards were agreed and introduced in 2011 to provide a strong national foundation and common language for the teaching profession in Australia.⁴

They are a public statement setting out what teachers should know and be able to do at each of the four identified career stages and make clear the knowledge, practice and professional engagement required to be an effective educator.

The Professional Standards provide the benchmarks used in national approaches to accreditation of teacher education programs, registration of teachers for employment and formal recognition of the higher level skills of Highly Accomplished and Lead Teachers.⁵

⁴ Australian Institute for Teaching and School Leadership (2011b), *Australian Professional Standards for Teachers*

⁵ Australian Institute for Teaching and School Leadership (2012b), *Certification of Highly Accomplished and Lead Teachers in Australia*

National approach to accreditation

In Australia, a nationally consistent approach to the accreditation of initial teacher education programs was agreed in 2011, and implemented from 2013, through the Accreditation Standards.

The Accreditation Standards set requirements to ensure that initial teacher education programs produce graduates who meet the Graduate career stage of the Professional Standards. The Graduate career stage outlines the skills and capabilities that students should develop through their initial teacher education program. Students who successfully complete an accredited program meet the qualification requirements for registration and employment as a teacher in Australia.

The requirements of the Accreditation Standards cover various aspects of initial teacher education programs, from their development, structure and delivery, to the selection of entrants and the establishment of provider partnerships with schools.

Regulatory authorities in each state and territory have legislative responsibility for the accreditation of initial teacher education programs. Under the agreed national process, the regulatory authorities convene accreditation panels to assess programs against the Accreditation Standards and any additional state-based requirements. It is expected that by 2018 all programs will be accredited under the national approach, which requires programs to be re-accredited at least every five years.⁶

The Professional Standards and the Accreditation Standards have been important in establishing clear criteria for the skills and knowledge we expect graduates to develop through their initial teacher education. They provide a strong foundation for quality assurance and improvement to initial teacher education.

1.2.3 Higher education context

In May 2014 there were 174 providers of higher education in Australia, including 43 universities (37 of them public universities).⁷ Providers are required to be registered under the *Tertiary Education Quality and Standards Agency Act 2011* (Cth). Registered providers deliver qualifications aligned to the Australian Qualifications Framework (AQF), a national system established by the Australian Government to regulate education and training qualifications.

Most students undertaking initial teacher education have the cost of their tuition subsidised by the Australian Government which provides funding for Commonwealth Supported Places (CSPs) through the Commonwealth Grant Scheme. Since 2012, public universities have been able to offer CSPs to every domestic student they accept into a bachelor degree program. Public universities also have an allocation of CSP funding for postgraduate students.⁸ Some private and non-university providers also have allocations of CSPs for initial teacher education, and a few private providers offer initial teacher education on a full fee-paying basis.

State and territory regulatory authorities have legislative responsibility for accreditation of all initial teacher education programs.

The scale of initial teacher education in Australia is significant: there were over 450 programs across 48⁹ institutions in 2014¹⁰ and 79,623 enrolled pre-service teachers in 2013.¹¹ See Appendix G for further data on initial teacher education.

To qualify as a teacher, graduates must hold a four-year or longer full-time equivalent higher education qualification structured as either:¹²

- a three-year undergraduate degree plus a two-year graduate-entry professional qualification (for example, an undergraduate Bachelor of Arts plus a Master of Teaching)
- an integrated qualification of at least four years comprising discipline studies and professional studies (for example, a Bachelor of Education: Primary)
- combined degrees of at least four years (for example, Bachelor of Education: Secondary and a Bachelor of Science)
- other combinations of qualifications identified by the provider and approved by the teacher regulatory authority in consultation with AITSL to be equivalent to the above that enable alternative or flexible pathways into the teaching profession (including employment-based programs).

6 Australian Institute for Teaching and School Leadership (2014c), *Initial Teacher Education Data Report*, p.3

7 Tertiary Education Quality and Standards Agency (2014), *TEQSA snapshot May 2014*

8 Department of Education (2014), *Commonwealth Grant Scheme Guidelines*

9 Based on count of providers listed on AITSL website as at 7 November 2014

10 Australian Institute for Teaching and School Leadership (2014c), p.6

11 Department of Education (2014), *Higher Education Statistics: 2013 Special Courses*

12 Australian Institute for Teaching and School Leadership (2011a), *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures*, p.12

Students are able to choose between initial teacher education programs that focus on specific stages of schooling such as early childhood, primary and secondary. Opportunities are available to specialise in selected subjects for secondary teachers or areas of specialisation for primary teachers such as music, physical education or special needs. Specialisations can be incorporated into initial degrees or offered through double-degree options.¹³

Higher education providers graduated around 17,000 initial teacher education students at undergraduate and postgraduate levels each year between 2006 and 2012, with 17,900 graduates in 2013.¹⁴ These graduates entered a workforce that in 2013 had 261,585 full-time equivalent teachers employed across Australia, of whom 136,017 were primary school teachers and 125,568 were secondary teachers.¹⁵ In 2013, 22 per cent of primary teachers and 18 per cent of secondary teachers were early career teachers—that is, teachers in their first five years of teaching.¹⁶

Appendix H provides further teaching workforce data.

1.3 Driving reform

The ambition of the Advisory Group has been to recommend strong reforms to lift the standard across all initial teacher education programs in Australia. A culture of high expectations and best practice in initial teacher education is essential for achieving public confidence in the Australian teaching profession.

The Australian Government must bring together the school and higher education sectors, state and territory governments and the Catholic and independent sectors to implement change and build on national reform to date. Australian students deserve world-class teachers. All parties must work together to make sure every teacher is effectively prepared for the classroom through their initial teacher education and supported to continually develop through their career. A targeted effort to achieve this is needed as a matter of urgency.

The Advisory Group considers that the Australian Government's role in funding and overseeing the higher education sector positions it ideally to lead reform of initial teacher education. The Australian Government can provide a national perspective to facilitate collaboration and innovation to deliver the high-quality initial teacher education Australian pre-service teachers and their future students deserve.

Recommendations

1. Standards for the quality of initial teacher education be set high, programs rigorously assessed and requirements made transparent.
2. The Australian Government acts on the sense of urgency to immediately commence implementing actions to lift the quality of initial teacher education.

13 Australian Institute for Teaching and School Leadership (2014c), p.23

14 Department of Education (2014), Higher Education Statistics Data Cube (uCube)

15 Australian Bureau of Statistics (2014), Schools Australia 2013, cat. no. 4221.0, Table 51a

16 McKenzie, P., Rowley, G., Weldon, P. Murphy, M. and McMillan, J. (2014), *Staff in Australia's Schools 2013: Main Report on the Survey*, Table 8.2

1.4 Areas of focus

This chapter has explored the imperative for initial teacher education reform in Australia, the overarching context and complexities of initial teacher education, and calls for urgent national action to improve the quality of teacher preparation.

The remaining chapters of the report examine selected elements of initial teacher education particularly those the Advisory Group believes will make the most difference to teacher quality. These include raising the quality and standards of initial teacher education by applying rigorous quality assurance processes and selection methods to programs, and the integration of theory and practice through better partnerships between providers and schools.

The report focuses on ensuring that graduates are classroom-ready from their first day as a teacher through the delivery of high standards of initial teacher education, robust assessment, and support for beginning teachers to be the best they can be through strong induction and mentoring as they begin their careers.

The case is also made for a national focus on initial teacher education, beginning with rigorous national accreditation of programs, registration of pre-service teachers and development of national research and capability to support improvements to initial teacher education and workforce planning.

In developing its findings and formulating its recommendations, the Advisory Group considered current practice nationally and internationally, relevant research, and stakeholder views provided through submissions and consultations.

This has ensured that the key proposals and recommendations set out in this report are strong, practical and targeted to achieve genuine national reform to initial teacher education.

2. Raising the quality of initial teacher education

Action to improve the quality of teachers in Australian schools must begin when they are first prepared for the profession. It is clear that there is public concern about the quality of initial teacher education. To address this, the standard across *all* programs must be lifted. How programs are developed and assessed and how entrants to programs are selected are two key determinants of the quality of initial teacher education in Australia.

The *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures* (Accreditation Standards) provide a foundation for quality assurance and improvement of initial teacher education. However, they are not being effectively applied and the implementation timeframes are too slow.

Teaching demands both academic skills and personal qualities that engage students and foster learning. These critical components are needed to give entrants to initial teacher education the best chance of success in a teaching career. Australians must have confidence that all entrants to initial teacher education are well suited to teaching, yet this confidence is currently lacking.

2.1 Quality assurance through program accreditation

Quality assurance for initial teacher education programs in Australia from 2013 is through the Accreditation Standards (see Appendix E), which set the benchmark for the quality of the programs offered by 48¹⁷ higher education providers delivering initial teacher education across the country.

2.1.1 Current practice in program accreditation

Decisions to accredit programs are made by the state and territory teacher regulatory authorities for secondary, primary and early childhood programs. Providers submit a formal application for program accreditation to the regulatory authority, which then convenes an assessment panel. The Australian Institute for Teaching and School Leadership (AITSL) is notified of the program and institution seeking accreditation at the point of application.

Providers submit documentation, including course outlines as approved by their institution, and further information to demonstrate how the program meets the Accreditation Standards and how pre-service teachers will be assessed as achieving the *Graduate level of the Australian Professional Standards for Teachers*.

The assessment panel will recommend that a program not be accredited if they believe there is insufficient evidence that it will meet the Accreditation Standards. Deficiencies are generally resolved through discussion and negotiation between the panel and the provider, with no time limit on the application process. The panel provides its final report to the regulatory authority, which then decides to accredit or not to accredit the program, or to accredit the program with conditions. Accreditation refusal is rare; generally all programs are accredited. AITSL is advised of the outcome and updates the national register of accredited programs.¹⁸

¹⁷ Based on count of providers listed on AITSL website as at 7 November 2014

¹⁸ Australian Institute for Teaching and School Leadership (2013), *Accreditation of Initial Teacher Education Programs in Australia: Guide to the Accreditation Process*, p.8

To date,¹⁹ 104 programs have achieved accreditation in accordance with the Accreditation Standards. The timelines in place mean that the full effect of current reforms will not be seen in all Australian classrooms before 2023.

Finding

The full impact of the implementation of the Accreditation Standards will not be in place until 2023.

2.1.2 Stakeholder views on program accreditation

Stakeholders welcomed the introduction of the Accreditation Standards and endorsed their continuation, aligning with the Productivity Commission's view, that over time, they have the potential to improve the quality of graduate teachers.²⁰

However, the Advisory Group heard that the accreditation process clearly needs significant strengthening to achieve the rigour needed. Stakeholder concerns include the limited evidence required to demonstrate the quality of programs and graduates, as well as the limited ongoing monitoring of programs. The Australian College of Educators described the current process as having low rigour because providers' delivery practices and outcomes are not examined and the procedure allows all programs to eventually achieve accreditation.²¹

These concerns echo the Productivity Commission's finding that 'the requirements for evidence are too vague for accreditation panels to be able to objectively and consistently assess whether programs are producing high quality graduates'.²² Submissions to the Advisory Group supported programs being required to show evidence of outcomes and continuous improvement as part of a strengthened national accreditation process.

A number of stakeholders called for rigorous assessment of program proposals and for results to be made public to provide transparency and increase accountability.

Online provision of initial teacher education was a particular concern for some stakeholders. There was general agreement that online delivery can provide accessibility for some students. However, concerns were raised that the accreditation requirements are not strong enough to ensure external students are properly supported throughout their program.

Findings

Applications for accreditation do not require rigorous assessment of evidence to support program design and the outcomes expected of graduates.

Stakeholders called for greater rigour, transparency and consistency in the accreditation process.

2.1.3 Research and international practice

Internationally the accreditation of initial teacher education programs is recognised as an effective mechanism for raising and maintaining the quality of programs. The Organisation for Economic Co-operation and Development (OECD) sees accreditation as a way of ensuring that initial teacher education is evaluated, reviewed and debated on an ongoing basis. Improving initial teacher education can be encouraged by raising accreditation requirements, with a focus on program outcomes.²³

Korea has recently focused strongly on quality assurance for initial teacher education. From 2010, Korea strengthened its national evaluative system for initial teacher education to be more comprehensive and have greater consequences for programs and providers.²⁴ The Korean Educational Development Institute was given responsibility for the evaluation of all

19 Based on count of providers listed on AITSL website as at 25 September 2014

20 Productivity Commission (2012), *Schools Workforce*, p.14

21 Australian College of Educators submission

22 Productivity Commission (2012), p.14

23 McKenzie, P., Santiago, P., Sliwka, P. and Hrioyuki, H. (2005), *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, pp.112–113

24 Jensen, B., Hunter, A., Sonnemann, J. and Burns, T. (2012), *Catching up: Learning from the Best School Systems in East Asia*, p. 61

teacher education programs and the providers that deliver them. Evaluations involve self-evaluation reporting combined with interviews, observations and data collection, and include a focus on program outcomes. Evaluation results are made public and programs that perform poorly risk having student places limited.

In the United States, the Council for the Accreditation of Education Preparation (CAEP) introduced accreditation standards as part of their response to improving the quality of teacher preparation.²⁵ The CAEP accreditation standards are 'based on evidence, continuous improvement, innovation, and clinical practice, to ensure that accredited providers are preparing educators that are classroom-ready and demonstrably raise learning for all students'.²⁶ The standards ask institutions to provide evidence of their impact on pre-service teachers and their students, and CAEP accredits programs on the basis of the supporting evidence.

The United States National Council on Teacher Quality developed a ranking system to assess teaching programs and provide information to the public about the quality of teacher education programs. This has produced an information source that may be useful to providers in making decisions about improving their programs and to prospective students in selecting their provider.²⁷

Finding

Internationally there is increasingly rigorous program accreditation, requiring provision of research, evidence of program impact and continuous improvement, to provide quality assurance.

2.1.4 Strengthening program accreditation

It is the Advisory Group's view that the current accreditation process needs greater rigour to ensure the quality of all initial teacher education programs. The strengthening of this process needs to occur quickly to meet the urgent calls for reform. Robust accreditation is required and providers must be held to greater account for program outcomes.

Providers must be required to demonstrate the evidence and research underpinning their program and the criteria they will use to measure graduate student outcomes, as well as clear planning for continuous improvement. This evidence and research must include the development of subject content and pedagogy, student assessment and professional experience, including strategies to assess their impact on student learning. These elements all strongly contribute to classroom readiness.

The Advisory Group proposes that, while provisional accreditation will be attained following favourable assessment of the application for accreditation, full accreditation will only be attained after providers demonstrate successful graduate outcomes supported by data. Where providers can show their program has consistently produced high-quality beginning teachers, they should be treated with a 'light touch' approach when seeking reaccreditation of that program.

In contrast, where providers are unable to demonstrate high-quality outcomes they should be brought to the attention of the Tertiary Education Quality and Standards Agency (TEQSA).²⁸ Referral to TEQSA would send a signal of concern about performance at the institution as well as at the program level. Stronger accreditation requirements will not preclude innovation in program design and delivery but will require evidence and research to support innovative approaches to the delivery of initial teacher education.

Greater consistency in the accreditation process also depends on having panels composed of highly qualified assessors who are able to assess the evidence supporting each program and the proposals for measuring program effectiveness. It is possible that the current process of local-level assessments undertaken by jurisdiction-based panels contributes to the lack of rigour. State and territory based panels may not be adequately qualified or trained to make the hard decisions needed to genuinely improve the quality of the teacher education system nationally.

²⁵ Council for the Accreditation of Educator Preparation (2013a), *CAEP Accreditation Standards*

²⁶ Council for the Accreditation of Educator Preparation (2013b), *New Accreditation Standards Adopted to Ensure Quality in Educator Preparation*

²⁷ National Council on Teacher Quality (2014), *2014 Teacher Prep Review*

²⁸ The Tertiary Education Quality and Standards Agency registers and monitors provider quality in line with the Higher Education Standards Framework. See also section 1.2.3.

The level of quality assurance in the accreditation of programs is also diluted by a process that allows multiple revisions to take place until accreditation is achieved. Once assessed, providers should initially receive provisional accreditation until they are able to demonstrate that their program has achieved successful graduate outcomes.

The Advisory Group believes that information on program outcomes should be made publicly available to help applicants considering a career in teaching to make informed decisions about where to undertake their studies. The Advisory Group believes that the Australian Government's new Quality Indicators in Learning and Teaching website will be one source of data to help achieve this. In a future deregulated higher education market it will be important that potential initial teacher education students have access to information on individual programs, including specific program data and evidence of program outcomes.

Some stakeholders have called for a national authority to administer the program accreditation process to better achieve consistent quality across programs. The Australian Council of Deans of Education proposed an 'Australian Centre for the Teaching Profession' to provide a national approach to program accreditation.

AITSL suggested that a national pool of accreditation panel chairs with the experience and expertise to facilitate rigorous and consistent accreditation panel decisions would strengthen the existing process. It is critical that accreditation panels comprise people with the skills and capabilities to review applications and make decisions about whether a program meets the standards and is therefore likely to produce effective teachers.

The Advisory Group agrees that a national authority would be best placed to undertake a more rigorous and consistent national accreditation and quality assurance process. A national body with direct responsibility for the assessment and accreditation of initial teacher education programs would ensure greater consistency in the application of the process and provide assurance that initial teacher education programs provide the same quality of graduate, regardless of the delivery mode or location.

AITSL was established to provide national leadership and promote excellence in teaching and school leadership, including through initial teacher education. It has no role in regulation to ensure that its Accreditation Standards are rigorously implemented. It is the Advisory Group's view that a reconstituted AITSL would be well placed to take on the national accreditation function to ensure rigorous, consistent assessment and monitoring of initial teacher education programs.

Recommendations

In the area of initial teacher education program accreditation the Advisory Group recommends that

3. The Australian Institute for Teaching and School Leadership be reconstituted to undertake a stronger role to ensure high standards of initial teacher education in Australia.
4. The Australian Government establish a national initial teacher education regulator through a reconstituted Australian Institute for Teaching and School Leadership to overhaul and manage the accreditation of initial teacher education programs, and work with the states and territories to ensure rigorous accreditation processes operate effectively with teacher registration.
5. The national initial teacher education regulator assess evidence that demonstrates the achievement of graduate outcomes.
6. Initial accreditation of programs requires higher education providers to demonstrate that their programs have evidence-based pedagogical approaches, effective integration of professional experience, rigorous and iterative assessment of pre-service teachers throughout their education, and final assessments that ensure pre-service teachers are classroom ready. Higher education providers provide a set of measures that assess the effectiveness of their programs in achieving successful graduate outcomes.
7. Initial accreditation of programs be considered provisional and full accreditation only occur once higher education providers have developed sufficient evidence to demonstrate successful graduate outcomes. Higher education providers build evidence on a continual basis that captures each cohort of pre-service teachers.
8. Accreditation panel members be appropriately qualified and skilled, and be supported by the national initial teacher education regulator.
9. Higher education providers that can demonstrate evidence of successful graduate outcomes at reaccreditation be monitored through a 'light touch' process.

2.2 Suitability and selection of pre-service teachers

There is debate over how students are selected for entry to initial teacher education. Some providers prefer a focus on academic distinction while others emphasise the personal qualities that engage and foster student development and learning. Suitability for teaching demands both sets of characteristics.

Research suggests that for a person to become an effective teacher they need high overall literacy and numeracy skills, strong interpersonal and communication skills, a willingness to learn and the motivation to teach.²⁹ Recognition of these characteristics can allow providers to recruit entrants most likely to be effective teachers, while increasing confidence in those going into teaching through greater scrutiny and transparency.

2.2.1 Current selection practices

The Australian Tertiary Admission Rank (ATAR)³⁰ is the most commonly used mechanism for the selection of Year 12 school leavers to undergraduate teacher education programs. However, in 2012 school leavers with a known ATAR comprised just 19.5 per cent of the total domestic undergraduate commencements in teacher education.³¹

Most universities publish a minimum required ATAR or ATAR cut-off for program entry. Published ATAR cut-offs in recent years have contributed to public debate about the quality of entrants to initial teacher education. However, any trends in ATAR cut-offs are difficult to assess. Providers may publish notional cut-offs but then admit large numbers of applicants through such techniques as 'forced offers' to individual candidates who do not possess the required ATAR. In this way, providers can publish unrealistic cut-offs that are met by relatively few applicants and compare favourably with the cut-offs published by providers who genuinely report the typical lowest entry score for their initial teacher education programs.

A further complication is the practice of awarding bonus points, which can boost an applicant's ATAR to meet the cut-off for entry. Awarding of bonus points is a longstanding practice and, in the case of bonus points for studying subjects such as mathematics, science and languages, one that is generally supported. Other bonuses may relate to disadvantage, place of residence or other factors. Some bonuses are applied directly by the provider while others are applied by a state-based tertiary admission centre. The use of bonus points may not be inherently problematic, but lack of transparency in their use adds to the confusion about entry standards for initial teacher education.

Many providers do not rely solely on ATAR even when making offers to school leavers. Instead they use a combination of academic achievement (including ATAR, post-secondary study and higher education programs) and additional mechanisms (such as prior experience, interview, standardised testing, portfolios and written applications) in selecting suitable candidates for entry into initial teacher education. However these practices are neither consistent nor transparent.

Known examples in Australia of sophisticated approaches to selection look at not only the academic capability of individuals but also their personal attributes. These practices can include psychometric assessment, evidence of prior experience, interviews and written applications.

One such approach to selection is the University of Melbourne's Teacher Selector tool. Teacher Selector is a web-based tool made up of a series of assessments that collect information to assist in the selection of entrants to initial teacher education programs. The University of Melbourne uses the tool, along with an applicant's academic record, to better select candidates into its Master of Teaching program. While still in the early stages, the Melbourne Graduate School of Education has found that initial teacher education students have a strong interest in using the results of the assessments as a way to become a better teacher. Longitudinal studies are being undertaken to investigate the predictive capacity of the tool to establish factors that will predict prolonged career engagement and service. This will further improve selection of initial teacher education students over time.³²

29 Barber, M. and Mourshead, M. (2007), *How the World's Best-Performing School Systems Come Out on Top*, p.17

30 The ATAR converts a student's overall Year 12 score in their state or territory into a nationally comparable percentile ranking of between 0 and 99.95, to assist in ranking higher education applicants. All states and territories, except Queensland, have adopted ATAR as the measure of student achievement. Queensland retains the Overall Position (OP) system, which is currently under review.

31 Australian Institute for Teaching and School Leadership (2014c), p.30

32 Hattie, J. and Bowles, T. (2013), 'A Winning Formula: How to Pick the Best Teachers', *The Conversation*

The admissions process for initial teacher education used by the University of Notre Dame Australia (Notre Dame) provides another approach to selection. After considering ATAR, Notre Dame uses two additional measures to identify the applicants most likely to be suited to teaching. First, applicants submit a personal statement to provide insight into their interests, ambitions, and writing ability. Second, each student is interviewed individually by an academic staff member to explore their professional suitability for teaching.³³

There are also a number of higher education providers that offer additional support for those who may not originally meet academic requirements for entry to initial teacher education. The University of New England (UNE) offers the Teacher Education Enabling Course for entrants to its undergraduate initial teacher education programs.³⁴ The course is designed to provide entrants with the required standard of literacy and numeracy for teaching, in alignment with state-based registration requirements.

Finding

Some providers publish their Australian Tertiary Admission Rank cut-offs for program entry but these scores do not always reflect the actual intake.

2.2.2 Stakeholder views on suitability and selection

Stakeholders acknowledged that reliance on a single measure is inadequate for selecting high-quality pre-service teachers and indicated the need for a flexible, blended approach to selection. It was suggested that admission criteria should focus on the broad range of characteristics, including academic capability, that beginning teachers need to be successful in the classroom. These characteristics could be assessed through interviews, portfolios and evidence of participation in community activities involving working with young people to supplement prior academic achievement.

The Professional Standards explicitly outline what knowledge, skills and attributes an effective teacher at Graduate level should possess. Stakeholders argued that these should guide selection criteria.

School systems place significant value on the personal characteristics that make successful teachers, in addition to academic achievement. The Catholic sector in particular emphasised the importance of selection processes that take into account characteristics beyond ATAR.³⁵

A number of stakeholders called for undergraduate entry to be restricted to those with high tertiary entrance scores or achievement in certain subjects. The current policies of some employers reflect this preference. For example, New South Wales has imposed higher minimum academic requirements³⁶ from 2015.³⁷ Stakeholders supported the Accreditation Standards requirement for entrants to initial teacher education programs to have personal literacy and numeracy levels broadly equivalent to the top 30 per cent of the population.

Several stakeholders also supported more sophisticated selection processes that filter out pre-service teachers who are not suited to teaching. It was their view that establishing a sophisticated selection process that determines aptitude, academic capacity and personal characteristics will ensure that those who are best suited to teaching are accepted into initial teacher education.

2.2.3 Research and international practice

Some top-performing school systems focus on academic ability for recruitment to initial teacher education by selecting entrants from the top cohort of school leavers; however, they are also increasingly using additional measures to assess suitability for a career in teaching.³⁸ For example, after recruiting from the top performers, countries considered to be delivering world-class educational outcomes now 'rigorously screen students on other qualities they believe to be predictors of teaching success, including perseverance, ability to motivate others, passion for children and organisational and communications skills'.³⁹

33 University of Notre Dame Australia submission

34 University of New England submission

35 National Catholic Education Commission submission

36 Entrants to undergraduate programs will require Higher School Certificate Band 5 results in a minimum of three subjects, one of which must be English.

37 New South Wales Department of Education and Communities (2013), *Great Teaching, Inspired Learning: A Blueprint for Action*, p.7

38 Barber, M. and Mourshead, M. (2007), pp.16–19

39 Auguste, B., Kihn, P. and Miller, M. (2010), *Closing the Talent Gap: Attracting and Retaining Top-Third Graduates to Careers in Teaching*, p.9

While there may be no single factor that can predict success in teaching, research on teacher characteristics and student outcomes has found that using a broad set of measures can help improve the quality of teachers. Predictors include teaching-specific content knowledge, cognitive ability, personality traits, feelings of self-efficacy and scores on a commercially available teacher selection instrument.⁴⁰

Available research indicates that while ATAR may be a good predictor of success for students entering university with strong secondary school performance, it loses predictive capability for those entering university with lower scores, as many students with average or comparatively low senior secondary results also do well once at university. Significantly, the research also noted that, while rankings are clearly a very good predictor of performance in engineering, agriculture and science, the relationship is low for education.⁴¹

The perception of low ATAR entry is of particular concern for some regional universities due to a significant difference in the circumstances of metropolitan and regional Australians when it comes to the attainment of university education.⁴² However, available data shows that the total proportion of students admitted to teacher education programs on the basis of an ATAR of 60 or less remains low across the board, at approximately seven per cent for regional universities in 2013 and about six per cent for all universities.⁴³

Findings

There are diverse views regarding selection of initial teacher education students and there is strong support for the use of sophisticated processes to select the students who will make the best teachers.

High-performing education systems screen initial teacher education students against criteria they believe will make the best teachers, including academic capability, literacy and numeracy skills and personal characteristics.

2.2.4 Improving pre-service teacher selection

The Advisory Group believes that the selection of pre-service teachers must be based on the academic and personal characteristics of a highly effective teacher. High-performing systems are increasingly using more complex measures to assess suitability for teaching. In contrast, the methodology used to select students in Australia is inconsistent and not transparent.

In looking for information about how students are selected, the Advisory Group found it challenging to find information beyond identified ATAR cut-offs. The Advisory Group heard that the ATAR cut-offs applied by some institutions were a weak guide to actual entry standards because such techniques as forced personal offers meant that large proportions, and even a majority, of initial teacher education students enrolled in a course would not actually meet those cut-offs. At the same time there was considerable confusion about the range of bonus schemes applied by providers in selection. While some providers use other criteria in selecting initial teacher education students, this is not necessarily reported publicly. The Advisory Group also noted varying levels of publicly available information about individual program requirements that would inform student decision-making before applying for entry.

Using simplistic approaches to select initial teacher education students will not lift the overall quality and capabilities of teachers being prepared for Australia's classrooms. The Advisory Group believes that providers need to develop and implement sophisticated and transparent approaches to selection that take into account each applicant's academic capabilities and the personal attributes needed for teaching.

40 Rockoff, J. (2011), 'Can you Recognize an Effective Teacher When You Recruit One?', *Education Finance and Policy*, 6(1), pp.43–74.

41 Dobson, I. and Skuja, E. (2005), 'Secondary Schooling, Tertiary Entry Ranks and University Performance', *People and Place*, 13(1), pp.53–62

42 Richardson, S. and Friedman, T. (2010), *Australian Regional Higher Education: Student Characteristics and Experiences*

43 Department of Education (2012), customised data from the *Higher Education Statistics Collection*

There has been a change in the academic profile of entrants into teaching in Australia, with a decline in the number of top school leavers entering teaching and an increase in the number with lower academic outcomes.⁴⁴ Providers selecting initial teacher education students with the personal characteristics suited for teaching but lower academic outcomes must ensure that they deliver stronger support for those who may struggle to meet the academic requirements of teaching. This support will be critical to ensuring that all pre-service teachers achieve the Graduate Standard and are well positioned to become highly effective teachers.

The Advisory Group acknowledges that there is an ongoing question about how to attract the best candidates into initial teacher education, especially in the disciplines of science, mathematics and languages. Previous efforts by the Australian Government to encourage graduates from specific disciplines to pursue employment in teaching have had limited success, but the Advisory Group noted that in a deregulated market there may be further opportunities to build on previous initiatives in a more targeted and defined way.

Recommendations

In the area of suitability and selection, the Advisory Group recommends that

10. Higher education providers select the best candidates into teaching using sophisticated approaches that ensure initial teacher education students possess the required academic skills and personal characteristics to become a successful teacher.
11. Higher education providers publish all information necessary to ensure transparent and justifiable selection processes for entry into initial teacher education programs, including details of Australian Tertiary Admission Rank bonus schemes, forced offers and number of offers below any published cut-off.
12. Higher education providers identify entrants who may need additional support to meet the academic requirements of the program, and provide them with targeted support to ensure all pre-service teachers have the academic skills needed to become effective teachers.
13. Higher education providers use the national literacy and numeracy test to demonstrate that all pre-service teachers are within the top 30 per cent of the population in personal literacy and numeracy.

⁴⁴ Australian Institute for Teaching and School Leadership (2014c), p.33

3. Preparing effective teachers—integration of theory and practice

Initial teacher education must prepare graduates with in-depth content knowledge and a solid understanding of teaching practices that are proven to make a difference to student learning. To equip new teachers with the skills to apply this knowledge and understanding in the classroom, theory and practice in initial teacher education must be inseparable and mutually reinforced. Program content must be evidence based and must prepare beginning teachers to effectively address diverse student learning needs, understand how to use research and assessment to inform practice and lift student outcomes, and communicate effectively.

Professional experience placements are crucial to the development of new teachers and must provide strong opportunities to integrate theory and practice. Pre-service teachers undertaking professional experience must also be supported to continually reflect on and adjust their own practice. Close working relationships through effective partnerships between teacher education providers and schools can produce mutually beneficial outcomes. However, it is clear that providers, schools and school systems are not working effectively together in the delivery of professional experience, and that not all programs are providing new teachers with the practical skills they need to be effective teachers.

3.1 What providers teach—areas of concern

High-performing teachers have a thorough understanding of their subject content, possess high-quality pedagogical skills and are able to effectively meet the learning and developmental needs of a wide variety of students using research and student assessment data to inform their teaching practice. Program providers must give their graduates a strong foundation in these essential areas to enable them to become high-performing teachers.

The *Australian Professional Standards for Teachers* (Professional Standards) detail what must be delivered in all initial teacher education programs. During consultations, the Advisory Group heard a number of concerns regarding initial teacher education programs that are not addressing core areas in either course content or practice. The following discussion highlights these issues.

3.1.1 Evidence-based teaching practice

The theory, methods and practices taught to pre-service teachers need to be clearly based on evidence linked to impact on student learning outcomes.

The Advisory Group heard that some higher education providers and practitioners adopt teaching strategies that reflect populist thinking and have not been shown to provide positive outcomes to student learning. This advice was supported by inquiries into teacher education that found many teaching practices are not informed by research,⁴⁵ are not up to date, or are not well understood by those teaching them.⁴⁶

⁴⁵ National Inquiry into the Teaching of Literacy (2005), *Teaching Reading: Report and Recommendations*, p.14

⁴⁶ Education and Training Committee (2005), *Step Up, Step In, Step Out: Report on the Inquiry into the Suitability of Pre-Service Teacher training in Victoria—Final Report*

Initial teacher education programs must prepare new teachers to keep up to date with the latest developments in their academic subjects and in the practice of teaching.⁴⁷ To maintain up-to-date, evidence-based teaching practices through their career, pre-service teachers must be equipped with the capacity to investigate what is and is not effective in their own practice.⁴⁸ This approach is evident in internationally high-performing systems such as those of Finland and Singapore.

Finland favours a ‘teacher-as-researcher’ approach. Through this model, teachers are trained to reflect on and analyse their work, think scientifically and adjust their teaching continually.⁴⁹ To graduate from the Masters-level program required for initial teacher education, primary teachers must prepare an academic or scientific thesis in pedagogy, and secondary teachers in an academic discipline.

Singapore’s explicit focus in its reforms of curriculum, assessment, and teaching has been to develop a creative and critical-thinking culture in schools by overtly teaching and assessing these skills and creating an inquiry culture among teachers.⁵⁰ Teachers are supported to conduct action research on their teaching and to continually revise their teaching strategies in response to what they learn.

This focus on research and evidence is supported by the qualification and skill levels of staff within teacher education providers in both countries. In Finland the university staff who deliver initial teacher education are generally required to hold a Doctoral or other postgraduate degree.⁵¹ At Singapore’s National Institute of Education, 78 per cent of staff members hold Doctoral degrees and 19 per cent Masters degrees.⁵²

Finding

There are concerns that initial teacher education programs include content not informed by evidence.

3.1.2 Preparation for student diversity

The diversity of students in Australian classrooms requires teachers to be prepared to engage with students who are culturally and linguistically diverse and have specific learning difficulties or disabilities. Initial teacher education programs must ensure pre-service teachers learn to apply evidence-based theory to their teaching strategies to cater for the distribution of abilities in every classroom. Teachers need to analyse and evaluate their impact on learning and adjust their practice to best meet the needs of their students.

Raising student learning outcomes requires teachers to be equipped with the pedagogical knowledge that will allow them to effectively address the learning and development needs of all students in their class.⁵³ Rather than over-relying on a particular approach to teaching and learning, teachers must be able to personalise learning, assess student progress and have the ability to select appropriate strategies for teaching and learning.⁵⁴ Pre-service teachers must also develop the skills to know when and how to engage expert intervention and resources for their students.

A growing body of research acknowledges that teachers need a broad range of skills and strategies to maximise the learning of diverse student populations. The *National Inquiry into the Teaching of Literacy*, for example, identified compelling evidence that teachers need a comprehensive repertoire of strategies and approaches and need to know how to select and apply those strategies to meet individual learning needs.⁵⁵

47 British Educational Research Association and Royal Society for the Encouragement of the Arts, Manufacturing and Commerce (2014), *Research and the Teaching Profession: Building the Capacity for a Self-Improving Education System*, p.11

48 *ibid*, p.18

49 Tatto, M. (2013), *The Role of Research in International Policy and Practice in Teacher Education*, p.7

50 Darling-Hammond, L. (2013), *Developing and Sustaining a High-Quality Teaching Force*, p.49

51 Finnish National Board of Education

52 National Institute of Education, Singapore

53 Ingvarson, L. and Rowe, K. (2007), *Conceptualising and Evaluating Teacher Quality: Substantive and Methodological Issues*, p.2

54 Hattie, J. (2009), *Visible Learning—A Synthesis of Over 800 Meta-Analyses Relating to Achievement*, p.245

55 National Inquiry into the Teaching of Literacy (2005), p.37

The Advisory Group heard concerns that beginning teachers were not adequately equipped to address diverse student learning needs and work with cultural and community complexities. It was suggested that the ability to work effectively with special needs students, and in particular students with disability and learning difficulties, needs to be considered a core requirement of all teachers rather than a specialisation.

Finding

Teacher education programs are not consistently equipping beginning teachers with the evidence-based strategies and skills needed to respond to diverse student learning needs.

3.1.3 Using assessment for student learning

Traditionally the role of the teacher was to deliver the curriculum and the role of students was to learn. The teacher then used assessments to establish how much the student had successfully learnt. Hattie suggests that teachers need to move away from considering achievement data as saying something about the student and start considering achievement data as saying something about their teaching.⁵⁶ Assessment is a source of data that can inform teaching strategies.⁵⁷ Throughout the consultation the Advisory Group heard strong agreement that pre-service teachers must learn how to collect, use and analyse student data to improve student outcomes and their own teaching.

In contemporary practice, assessment should be used to inform the decision-making of teachers, including selecting appropriate interventions, monitoring progress and evaluating the effectiveness of teaching practice.⁵⁸ Assessment should guide teachers in making decisions about targeted teaching interventions.⁵⁹ The recent Review of the Australian Curriculum recommends a continued focus on raising the capacity of teachers to use relevant data to improve student learning.⁶⁰

Griffin's research on assessment provides a framework that recognises the importance of identifying what the student is ready to learn, rather than 'teaching to the test'. He also promotes collaboration between teachers in professional learning teams—encouraging the sharing of assessment data and team-based interpretation—to improve student outcomes and to plan goals for students.⁶¹

The Advisory Group was concerned that teacher education programs are not preparing preservice teachers to effectively understand which student data to collect, or how to analyse and use data to inform their teaching practice and improve the learning outcomes of students. This concern was shared by the independent sector, which highlighted the importance of preparing pre-service teachers to interpret and use student data to improve teaching effectiveness.⁶²

Finding

Providers are not preparing pre-service teachers with the knowledge and skills to use assessment data to inform and improve their teaching practice.

⁵⁶ Hattie, J. (2005), *What is the Nature of Evidence that makes a Difference to Learning?*, p.17

⁵⁷ Griffin, P. ed (2014), *Assessment for Teaching*, p.59

⁵⁸ Masters, G. (2013), *Reforming Educational Assessment: Imperatives, Principles and Challenges*, p.3

⁵⁹ Griffin, P. ed (2014), p.xv

⁶⁰ Donnelly, K. and Wiltshire, K. (2014) *Review of the Australian Curriculum Final Report*, p.234

⁶¹ Griffin, P.ed (2014), p.72

⁶² Association of Heads of Independent Schools of Australia submission

3.1.4 Content knowledge and pedagogy

Many researchers point to the depth of understanding of, and interaction between, content knowledge, pedagogical knowledge and pedagogical content knowledge as being positively linked with teaching performance. This recognises that subject content must be delivered through appropriate teaching strategies. Highly effective teachers possess strong pedagogical content knowledge that enables them to improvise and alter teaching strategies in response to different classroom situations.⁶³ The difference between expert teachers and pre-service teachers is this depth of pedagogical content knowledge.⁶⁴

A recent call by Australia's Chief Scientist to address critical future workforce demands highlights the need for teacher expertise to deliver contemporary subject matter using contemporary pedagogy.⁶⁵ Senior science, in particular, is still delivered with an expectation that students memorise significant amounts of information rather than develop the inquiry-based skills that are fundamental to how the discipline is practised.⁶⁶

A number of submissions argued that high-performing teachers have a thorough understanding of content and high-quality pedagogical skills, and that in the preparation of teachers these elements need integrating from the earliest point of a teaching program.

Finding

Beginning teachers need a solid understanding of subject content, pedagogy and pedagogical content knowledge.

3.1.5 Teaching in specific areas

While preparation for primary school teachers and secondary school teachers differs, it is acknowledged that literacy and numeracy are core components of student learning at all levels.

There is compelling evidence that the early years of schooling are critical in ensuring that foundational and essential skills for literacy competence are explicitly and comprehensively taught by teachers equipped with evidence-based teaching strategies. Once these foundational skills are learnt it becomes imperative to continue effective teaching by teachers who have a comprehensive range of strategies, as well as knowledge, to meet the learning needs of students.⁶⁷

Stakeholders also noted concerns about beginning teachers entering a secondary setting. It was noted that there is very little focus for secondary pre-service teachers on how students acquire literacy and numeracy skills.

Submissions strongly supported the explicit teaching of literacy and numeracy pedagogies as a requirement of all initial teacher education programs. Submissions also strongly advocated for the need to lift the science and mathematics competency of all pre-service primary teachers and of secondary pre-service teachers specialising in these areas of study.

Preparation for teaching literacy

Stakeholders identified concerns about a lack of specific preparation in literacy teaching. This is not a new finding. The 2005 *National Inquiry into the Teaching of Literacy* recommended that teachers need to have access to, understand and be able to use teaching strategies that are demonstrably effective.⁶⁸ In the United States the National Reading Panel found that a combination of techniques is effective in teaching students how to read—including phonemic awareness, phonics, fluency, guided oral reading, teaching vocabulary words, and reading comprehension strategies.⁶⁹ The report stated: 'although conventional wisdom has suggested that kindergarten students might not be ready for phonics instruction, this assumption was not supported by the data. The effects of systemic early phonics instruction were significant and substantial in kindergarten and the first grade.'⁷⁰

63 Hattie, J. (2009), p.261

64 Borko, H. and Putnam, R. (1996), *Learning to Teach, Handbook of Educational Psychology*, pp.673–708

65 Office of the Chief Scientist (2014), *Science, Technology, Engineering and Mathematics: Australia's Future*, p.23

66 Goodrum, D., Druhan, A. and Abbs, J. (2011), *The Status and Quality of Year 11 and 12 Science in Australian Schools*, p.53

67 National Inquiry into the Teaching of Literacy (2005)

68 *ibid* (2005), p.37

69 Report of the National Reading Panel (2000): *TEACHING CHILDREN TO READ: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction*, Executive Summary

70 *ibid*, p.58

Responses to a national survey of primary teachers in Australia indicated that, in almost all courses, less than 10 per cent of time in compulsory subjects is devoted to equipping pre-service teachers with an understanding of how to teach reading.⁷¹ In a survey of secondary beginning teachers, only 10 per cent of all respondents indicated that their course prepared them 'very well' to teach literacy.⁷²

The *National Inquiry into the Teaching of Literacy* recommended that literacy teaching within subject areas be included in teacher education program requirements for secondary teachers to ensure they are adequately prepared to continue the literacy development of students through all areas of the curriculum.⁷³ Reflection on current literacy teaching practices within Australia points to a long-running ideological debate between student-centred and teacher directed approaches.⁷⁴

Constructivism⁷⁵ is said to have had enduring influence on the content of teacher education courses and in-service teacher development programs, and to be the dominant influence on teaching early literacy in many Western countries.⁷⁶

Explicit instruction—a teacher-directed approach characterised by traditional instruction strategies that requires students to master certain skills before new skills are attempted—has been found to be effective in teaching early literacy. Many educators recommend an approach to explicit instruction that is embedded in a broader literacy framework and encompasses the capacity to foster independent, inquiry-based student learning.⁷⁷

Hattie states: 'it is not a particular method, nor a particular script, that makes the difference; it is attending to personalising the learning, getting greater precision about how students are progressing in this learning, and ensuring professional learning of the teachers about how and when to provide different or more effective strategies for teaching and learning'.⁷⁸ The 2014 Review of the Australian Curriculum recommended that research be undertaken to establish the efficacy of common pedagogical approaches.⁷⁹

What is clearly important is to prepare all pre-service teachers to be able to keep up to date with evidence about the effectiveness of teaching practices and continuously review their student outcomes to assess and adapt their own teaching practices to achieve the best learning outcomes for their students.

Preparation for teaching numeracy

A number of stakeholders raised concerns about the adequacy of current preparation for teaching numeracy. While there is some recognition that teaching literacy falls within the area of responsibility of all teachers, it has been more difficult to extend this recognition to include numeracy.⁸⁰

For primary teachers, confidence is recognised as important for achieving optimal mathematics learning for students.⁸¹ Research shows that primary teachers who lack mathematics knowledge in a particular topic tend to avoid teaching that topic altogether.⁸²

In a survey of beginning secondary teachers just one-third indicated that they had been well prepared to teach numeracy.⁸³ Numeracy teaching across the curriculum in secondary years has been identified as a particular challenge as teaching becomes more specialised and students have different teachers for each subject.⁸⁴

71 National Inquiry into the Teaching of Literacy (2005), p.20

72 Milton, M., Rohl, M. and House, H. (2007), *Secondary Beginning Teachers' Preparedness to Teach Literacy and Numeracy: A Survey*, p.6

73 National Inquiry into the Teaching of Literacy (2005), p.23

74 Rowe, K. (2006), *Effective Teaching Practices for Students With and Without Learning Difficulties: Constructivism as a Legitimate Theory of Learning and of Teaching?* p.1

75 Constructivism is a theory of knowing and knowledge based on educational psychology. Vieluf et al (2012, p.28) describe constructivist approaches as those where 'teachers are not thought to be direct transmitters of knowledge, but rather facilitators of an active, self-directed construction of knowledge'.

76 Rowe, K. (2006), p.2

77 Wyatt-Smith, C. and Gunn, S. (2007), *Evidence-Based Research for Expert Literacy Teaching*

78 Hattie, J. (2009), p.245

79 Donnelly, K. and Wiltshire, K. (2014) p.246

80 Watson, J. (2009), *Critical Numeracy in Context*, p.1

81 Bobis, J., Clarke, B., Clarke, D., Thomas, G., Wright, R. and Young Loveridge, J. (2005), *Supporting Teachers in the Development of Young Children's Mathematical Thinking: Three Large Scale Cases*, p.27–57

82 Department of Education, Science and Training (2004a), *Teachers Enhancing Numeracy*, as cited in *Numeracy in Teacher Education: The way Forward in the 21st Century* (2005), p.23

83 Milton, M., Rohl, M. and House, H. (2007), p.6

84 Department of Employment, Education, Training and Youth Affairs (1997), *Numeracy = Everyone's Business*, as cited in *Numeracy in Teacher Education* (2005), p.26

Teaching numeracy requires teachers to have knowledge of mathematics as a discipline, knowledge of how students learn and transfer mathematical skills, and knowledge of how teaching impacts on student use of numeracy.⁸⁵ Effective numeracy teaching practices are required in all curriculum areas to support effective delivery of subject content.

The Advisory Group heard that an early understanding of numeracy must be achieved and further developed as a student moves through the early years of schooling and through primary and secondary education. The Advisory Group concluded that all teachers need to graduate with a solid foundation in numeracy skills and numeracy teaching practice to be well prepared to meet the needs of students in their classes.

Finding

Primary and secondary pre-service teachers should be adequately prepared to use a range of evidence-based strategies to meet student learning needs, particularly in literacy and numeracy.

Primary specialisation, particularly in science, mathematics and languages

The role of a primary teacher has traditionally been viewed as a generalist teaching role. Increasing curriculum demands and the capacity of teachers to develop strong content knowledge has led to suggestions that there is a need for specialist teachers in the primary setting.

For example, research has found that learning to teach across all subject areas often left science content knowledge underdeveloped for primary teachers, which resulted in a lack of confidence to teach science.⁸⁶ The 2011 Trends in International Mathematics and Science Study (TIMSS) indicated that lack of confidence in teaching mathematics and science may impact on student engagement.⁸⁷ Student commitment to, and engagement with, mathematics and science is found to decline between the middle primary school years and the end of secondary school. TIMSS indicated that 55 per cent of Year 4 students 'like science' but only 25 per cent of Year 8 students 'like science'; and that 45 per cent of students liked mathematics in Year 4 but only 16 per cent of Year 8 students had an interest in mathematics.⁸⁸

Poor student engagement with science and mathematics in the early years results in fewer students studying at the advanced levels required for tertiary entrance and fewer qualifying to teach those subjects. Participation in science and mathematics courses by Australian Year 12 students has been declining in real terms for the past two decades.⁸⁹ In the early 1990s, nine out of 10 Year 12 students studied science; in 2011 that had shrunk to half the Year 12 cohort.⁹⁰ Inspiring students to engage with mathematics and science can best be achieved by teachers who are passionate about the subject and have the knowledge and confidence to present the curriculum imaginatively.⁹¹

The Advisory Group concluded that better knowledge and skills in primary science and mathematics will not only build confidence to teach these areas more effectively but also encourage students' engagement in science and mathematics throughout their schooling.

Similar challenges face language teaching. The small pool of pre-service language teachers and the broad diversity of languages taught in Australian schools means that current programs for language teachers are generic and lack differentiation, even though the need for differentiated courses is backed by research. Pre-service teachers are therefore not well prepared with the pedagogies required to teach languages as different as Mandarin, Indonesian and French.⁹²

85 Klein, M. (2008), *Pre-Service Teachers and Numeracy Education: Can Post Structuralism Contribute?*, p.319

86 Department of Education, Science and Training (2007), *Australian School Science Education National Action Plan 2008–2012*, p.20

87 Thomson, S., Hillman, K. and Wernert, W. (2012), *Monitoring Australian Year 8 Student Achievement Internationally: TIMSS 2011*, p.98

88 Mullis, I., Martin, M., Foy, P and Arora, A. (2012), *TIMSS 2011 International Results in Mathematics*, pp.327–333

89 Kennedy, J., Lyons, T., and Quinn, F. (2014), 'The Continuing Decline of Science and Mathematics Enrolments in Australian High Schools', in *Teaching Science*, Vol. 60 No. 2, p.44

90 Goodrum, D., Druhan, A. and Abbs, J. (2011), *The Status and Quality of Year 11 and 12 Science in Australian Schools*, p.ii

91 Office of the Chief Scientist (2012), *Mathematics, Engineering and Science in the National Interest*, p.20

92 Asia Education Foundation Submission

The Advisory Group heard of the challenges primary teachers face in confidently delivering instruction across the diverse range of subject areas in the primary curriculum and noted strong support from stakeholders for primary teachers to have a specialisation, particularly in science, mathematics or languages. Primary teacher specialisation has the capacity to increase the strength of curriculum knowledge across a school, as specialist teachers would become a valuable resource as they are encouraged by school leaders to share their specialisation in the school community.

Finding

There is growing interest in requiring primary teachers to have a specialisation, particularly in science, mathematics or languages other than English.

3.1.6 Engaging with school communities

Teachers, parents and the community share a significant responsibility in preparing young people to lead successful and productive lives. Good teaching practices include the ability to form strong relationships with students, their families and other community members.

In the Staff in Australia's Schools survey 2013, 26 per cent of early career primary teachers and 34 per cent of early career secondary teachers reported that their course was not helpful in preparing them to involve parents/guardians in the educative process.⁹³ Principals rated only 18 per cent of recent primary graduates and 27 per cent of recent secondary graduates as being very well prepared or well prepared to work with parents and guardians.⁹⁴

In their consultation with the Advisory Group, Australia's peak parent bodies called for initial teacher education to better address parental engagement. Submissions from the general public also identified training in parent engagement as an area for increased priority in teacher education courses.⁹⁵ The Advisory Group noted the critical role school leaders have in supporting successful engagement with parents, and the need for schools to be proactive, accessible and responsive to the parents of their students.

Finding

Beginning teachers need to be able to effectively engage and communicate with students and their families, particularly in relation to learning progress.

3.1.7 Strengthening what providers teach

The Advisory Group considers it critical that course content prepares beginning teachers to be effective in the classroom. Beginning teachers need an appropriate balance of knowledge of subject content and pedagogical skills, and the capacity to develop deep pedagogical content knowledge through their careers.

Effective initial teacher education programs provide pre-service teachers with immersion in theory about learning, development and subject matter in contexts where these can be applied, and ensure a strong link between theory and practice.⁹⁶

93 McKenzie, P., Rowley, G., Weldon, P., Murphy, M. and McMillan, J. (2014), Table 8.6

94 *ibid*, Table 12.17

95 Donnelly, K. and Wiltshire, K. (2014), p.242. The Review of the Australian Curriculum highlighted the importance of parent engagement and includes a specific recommendation to make the Australian Curriculum accessible to parents to enable greater engagement in, and understanding of, the curriculum.

96 Darling-Hammond, L., Hammerness, K., Grossman, P., Rust, F. and Shulman, L. (2005), *The Design of Teacher Education Programs. Preparing Teachers for a Changing World: What Teachers Should Learn and be Able to Do*, p.405

Recommendations

In the area of preparing effective teachers, the Advisory Group recommends that

14. Higher education providers deliver evidence-based content focused on the depth of subject knowledge and range of pedagogical approaches that enable pre-service teachers to make a positive impact on the learning of all students.
15. Higher education providers equip pre-service teachers with data collection and analysis skills to assess the learning needs of all students.
16. Higher education providers equip pre-service teachers with the skills to effectively engage with parents about the progress of their children.
17. Higher education providers equip all primary and secondary pre-service teachers with a thorough understanding of the fundamentals of teaching literacy and numeracy.
18. Higher education providers equip all primary pre-service teachers with at least one subject specialisation, prioritising science, mathematics, or a language. Providers publish specialisations available and numbers of graduates from these programs.

3.2 Integrating theory and practice

Beginning teachers in Australia consistently rate professional experience as the most useful part of their initial teacher education,⁹⁷ and submissions to the Advisory Group identified professional experience as crucial to the development of pre-service teachers' professional skills and abilities. Professional experience provides a critical link for integrating theory and practice.

Despite the acknowledged importance of professional experience, almost all stakeholders highlighted concerns about this component of current teacher education programs. The relationships between higher education providers and schools are not considered adequate to manage the complexities of professional experience or to effectively integrate professional experience with course work and theory. Submissions called for better integration and stronger links between providers, school systems, schools and supervising teachers.

3.2.1 Current practice in professional experience

Professional experience in schools is a requirement of the Accreditation Standards for all initial teacher education programs in Australia. Pre-service teachers completing four-year undergraduate programs are required to complete a minimum of 80 days of supervised teaching practice; those completing graduate entry two-year programs are required to complete a minimum of 60 days of supervised teaching practice.⁹⁸

Professional experience may include internships, observations, supervised practicum or community placements, all of which should be designed to provide an opportunity to apply acquired knowledge to real-life teaching situations. Pre-service teachers should be exposed to a wide range of school-based tasks during this time, from delivering the curriculum and managing students in a classroom to working as part of a school community.

⁹⁷ Australian Secondary Principals Association (2007), *Beginning Teachers Survey Report*, p.16

⁹⁸ Australian Institute for Teaching and School Leadership (2013), p.14

There are examples in Australia of strong professional experience opportunities achieved through close relationships between providers and schools. The Queensland University of Technology's School Community Integrated Learning pathway is offered to final-year Bachelor of Education (Primary) pre-service teachers.⁹⁹ Participants volunteer at a school one day per week during each semester and three days per week during university break. This leads into the formal four-week professional experience placement and continues throughout the year. By spending dedicated time in a focus classroom, which becomes their class during the placement, pre-service teachers have the opportunity to be involved in the development of students over an extended period of time. Participating pre-service teachers also experience being a part of a school community by joining in extra-curricular activities such as sports days, fetes, meetings and professional learning days.

The Advisory Group heard there is a high degree of variability in the types and quality of pre-service professional experiences and the extent to which they are integrated as part of the program. Some providers are very strong at delivering high-quality professional experience but there is also a very significant tail of poor provision. This variability is one factor that has prompted a focus on professional experience in recent policy initiatives in several jurisdictions, including New South Wales, Queensland and Victoria.

3.2.2 Challenges of providing professional experience

The Advisory Group heard about a number of challenges facing schools, school systems and higher education providers in the delivery of professional experience, including cost, availability, timing and length of placements. Victoria, the second largest employer of teaching graduates in Australia, estimates that up to 25,000 professional experience placements are needed each year in that state alone, which highlights the scale of the challenge.¹⁰⁰

Cost and availability of professional experience placements

The Advisory Group heard that teacher education faculties are finding it difficult to obtain sufficient professional experience placements and that this is especially true for providers located in regional areas. Also of concern were reports of schools and systems being approached by individual pre-service teachers who were required to personally source and arrange their professional experience placements. Reports consistently indicated that this was more likely to occur in programs delivered online.

There was concern that provider support to pre-service teachers undertaking professional experience has significantly eroded over recent years. Schools and employers reported that some providers have an excellent approach to coordinating professional experience but that in other cases placement schools receive a procedural document from the provider but have almost no other interaction with provider staff. Some jurisdictions are developing frameworks to address this. For example, Queensland intends to introduce formal professional experience partnership agreements between providers and all school sectors from 2015. One of the aims of the new approach is to manage the number and range of placement types and settings.¹⁰¹

Acknowledging the challenges surrounding the cost of professional experience placements, consultations highlighted some solutions suggesting greater flexibility in placements and supplementing placements by utilising technology.

The Advisory Group heard that recent practice has shown technological approaches will not replace experiences in the classroom but can complement face-to-face professional experience. Pre-service teachers can be exposed to teaching scenarios and teachers without the limitations of attending in person. Online technologies are ideal for allowing exposure to experienced teachers who can demonstrate ideas and techniques for addressing challenging scenarios. Pre-service teachers can benefit from seeing how different teachers approach different issues and, through discussions, reflect on their own approaches.

99 Queensland University of Technology submission

100 Victorian Department of Education and Early Childhood Development (2013), *From New Directions to Action: World Class Teaching and School Leadership*, p.10

101 Queensland Department of Education, Training and Employment (2013), *A Fresh Start: Professional Experience Partnership Agreements Fact Sheet*

Timing and length of professional experience

International studies have shown that high-performing and improving education systems have moved the initial period of teacher education from the lecture theatre to the classroom, allowing teaching skills to be built more effectively and earlier in the course.¹⁰² For example, the school system in Boston, USA, introduced a one-year teacher residency program in which pre-service teachers spend four days each week in school; in England, two-thirds of a one-year teacher education program is spent on teaching practice; and Japanese pre-service teachers spend up to two days a week in one-on-one coaching in their classrooms during their first year of initial teacher education.

The OECD *Teaching and Learning International Survey* (TALIS) reports that to build teacher capacity it is important to ensure that, during initial teacher education, pre-service teachers have several sufficiently long periods of teaching practice in a variety of schools.¹⁰³

The Advisory Group heard concerns regarding the timing of professional experience placements within the school year and the timing of these placements within teacher education programs.

There were strong suggestions that professional experience needs to commence earlier in the course, allowing pre-service teachers to be exposed to a wider variety of experiences as well as having the opportunity to determine whether they are suited to teaching. Early practical experience in the training of medical students has been found to make students more confident in their knowledge, demonstrate the practical relevance of the theory being learnt, improve student ability to relate to patients and understand their professional role, and motivate students by reminding them of the reasons for their career choice.¹⁰⁴

Consultations raised concerns about current requirements for the length and frequency of professional experience placements, and provided suggestions for improvement including residency, internship or clinical practice models. Extended placements allow pre-service teachers the opportunity to be in classes long enough to collect and analyse student data over a period of time and be involved in broader school activities such as parent and community events.

Greater flexibility in the timing of placements in the school year can ensure they are not occurring around school events such as major testing and will encourage pre-service teachers' exposure to a variety of elements of school life. Flexibility in timing would also lessen the pressure on schools facing demands from many courses at one time and better enable pre-service teachers to maximise their teaching time and in-school experiences.

Findings

Schools, school systems and higher education providers face challenges in ensuring that a sufficient number of professional experience placements of appropriate timing and length are available for all pre-service teachers.

Early and regular professional experiences are regarded as providing the best opportunity for pre-service teachers to demonstrate the practical application of what is being taught, and to assess suitability for teaching.

3.2.3 Integrating academic and professional learning

A clear message provided to the Advisory Group was the need for better integration and stronger links between course work and professional experience, as well as a shared understanding between providers and schools of the development of the graduate attributes over the duration of initial teacher education. Submissions called for a more serious integration between provider-based study of the theory and practice of teaching and learning and a formally structured school placement.

102 Barber, M. and Mourshed, M. (2007), *How the World's Best-Performing School Systems Come Out on Top*, p.28

103 OECD (2014), *TALIS 2013 Results: An International Perspective in Teaching and Learning*, p.201

104 Littlewood, S., et al. (2005), *Learning in Practice—Early Practical Experience and the Social Responsiveness of Clinical Education: Systematic Review*, p.388

Linking theory and practice

Addressing the apparent disconnection between theory and practice was identified by submissions as a key to improving professional experience. This echoes the concern about the weak link between theory and professional experience identified in the 2007 *Top of the Class* report.¹⁰⁵

Research indicates that pre-service teachers who participate in professional experiences linked to course work are better able to understand theory and to apply the concepts they are learning in their course work to support student learning. Internationally, better-performing systems have been found to have integrated professional experience into their teacher education programs.¹⁰⁶ A study of seven exemplary teacher education programs in the United States identified that a common feature of these programs was the provision of teaching opportunities (professional experience) carefully interwoven with course work.¹⁰⁷

The Advisory Group noted examples of Australian faculties of education working in partnership with schools to deliver integrated initial teacher education programs. Content and theory are closely linked in these programs with structured practice in schools, and are delivered in the context of the operations and experiences of school life. It was observed, however, that these partnerships and projects may often reflect individual connections between faculties and schools rather than a broader, more consistent approach.

The lack of a broader system-based approach was of particular concern to the Advisory Group with stakeholders reporting a range of instances where weak links failed pre-service students' ongoing development. Of particular concern were the reports that a number of online programs take no responsibility for establishing partnerships with schools, and therefore are unable to provide appropriately supported professional experience placements for their pre-service teachers. The independent sector in particular observed that some students are left to individually organise their own professional experience placement without university support.¹⁰⁸ Other stakeholders reflected that pre-service teachers who are sourcing their own placements are unlikely to have the expertise or knowledge of school systems to locate placements that will adequately link the theory component with classroom practice.

The Victorian government is working with schools and universities on partnership arrangements to strengthen the connection between practice and theory, including establishing teaching academies of professional practice. Each teaching academy (comparable to a teaching hospital) will include a leading school, a network of other schools and at least one university.¹⁰⁹

The Catholic sector emphasised the importance they place on ensuring that pre-service teachers support the ethos of their schools. Strong partnerships with providers enable schools to have a role in the selection of students who enter their schools for professional experience.¹¹⁰

It was clear to the Advisory Group that close working relationships through effective partnerships between providers and schools can produce mutually beneficial outcomes and facilitate a close connection between teaching practice and initial teacher education.

One potential benefit of closer partnerships is for providers to maintain the currency of their knowledge of school operating environments to inform program design. Provider staff roles should include school-based work for relevant staff to maintain classroom practice, support evidence-based practice in schools and ensure a better connection between teaching practice and ongoing educational research. The University of Canberra, for example, has seconded a number of high-performing teachers to work as clinical teaching specialists in its initial teacher education programs.

The *Down South* initiative established by the Canberra campus of the Australian Catholic University immerses pre-service secondary teachers in schools.¹¹¹ The partnership brings together university academics, school staff, pre-service teachers and secondary school students to create a dynamic community of practice for professional experience, teaching, learning and research. The pre-service teachers are given opportunities to engage in authentic learning experiences that reflect the reality of the everyday classroom across a range of school settings.

105 House of Representatives Standing Committee on Education and Vocational Training (2007), *Top of the Class: Report on the Inquiry into Teacher Education*, p.2

106 Barber, M and Mourshed, M. (2007), p.29

107 Darling Hammond, L. (2006a), *Constructing 21st-Century Teacher Education*, Journal of Teacher Education 2006 57: 300 p.305

108 The Independent Schools Council of Australia Submission

109 Victorian Department of Education and Early Childhood Development (2013), p.11

110 National Catholic Education Commission submission

111 The Office of Joy Burch, MLA, submission

The Advisory Group noted that the urgency of the need for change was underlined by jurisdictions acting to address the issue of better integration. New South Wales has established a framework to support a systematic, formally structured model for placements that sets clear expectations of roles and responsibilities for providers and schools in the delivery of high-quality professional experience. This will include the establishment of a small number of specialist professional experience schools.¹¹²

Finding

The quality of professional experience is limited by a lack of integration of theory and practice, and by a lack of integration of the work of providers and schools.

Effective supervision and mentoring

The most effective professional experience is not only aligned and developed with course work but also supervised by effective teachers in collaboration with providers.¹¹³ International benchmarking of best practice has identified that staff leading and supervising professional experience in schools should be exemplary teachers who have undertaken focused training for their roles.¹¹⁴

One analysis of Australian and international settings identified that best practice for effective delivery of professional experience involves partnerships between higher education providers, schools and supervisors that establish a common understanding of what constitutes highly effective teaching practice and operate through seamless integration of the work of staff in the two settings.¹¹⁵

Submissions to the Advisory Group highlighted a lack of quality assurance and a lack of structured training for supervising and mentor teachers to ensure they have the necessary skills to supervise, provide support and feedback, and assess professional experience placements. Stakeholders reported that supervising teachers are often selected to supervise professional experience placements based on the length of their teaching service. The Highly Accomplished and Lead levels of the Professional Standards offer a clear framework for identifying the teachers who are most skilled to fulfil the role, but there is scope for AITSL to further elaborate how the Professional Standards can inform selection and training of supervising teachers.

Some submissions suggested that partnership agreements between schools and providers should include arrangements for working together to deliver training for supervising teachers. The new framework in New South Wales will require teachers supervising professional experience placements to undertake registered professional learning programs—preferably providing credit towards university credentials.

The independent sector observed that strong and mutually beneficial partnerships between schools and providers can result in more effective supervision of pre-service teachers and skill development for mentor teachers.¹¹⁶

The Advisory Group concluded that school leaders and school sectors have a clear responsibility to select highly effective teachers to supervise pre-service teachers during professional experience. This would assist active engagement in school activities and participation in the teaching culture of their school.

Finding

Supervising teachers should have the training and skills required to effectively supervise and assess professional experience placements.

112 New South Wales Board of Studies, Teaching and Education Standards (2014) *A Framework for High-Quality Professional Experience in NSW Schools*

113 Cooper, J. and Alvarado, A. (2006), *Preparation, Recruitment, and Retention of Teachers*, p.15

114 Caldwell, B. and Sutton, D. (2010), *Review of Teacher Education and School Induction: First Report—Full Report*, p.129

115 *ibid*, p.9

116 The Independent Schools Council of Australia submission

3.2.4 Strengthening professional experience

Professional experience is an essential part of initial teacher education and provides the opportunity for pre-service teachers to develop practical skills for the classroom through integrating theory and practice in a school environment. The Advisory Group found that improving the availability and quality of placements will require stronger, more integrated partnerships between program providers, schools and school systems.

The Advisory Group considers that, to better support the integration of theory with practice, every program provider should establish formalised partnership agreements with placement schools. These agreements would cover all aspects of professional experience and include, at a minimum, a structure to support placements, including flexibility of workplace arrangements; a description of shared roles and responsibilities, including expectations of school leaders; shared assessment of pre-service teachers; identification and selection of supervising teachers; opportunity for additional professional development for supervising teachers; and better connection between staff, providers and schools.

The Advisory Group considers it the responsibility of providers to ensure that sufficient professional experience placements are available for all enrolled pre-service teachers, including those enrolled in online programs. Providers and schools need to work together to determine the most appropriate timing and mix of professional experience placements. This should include early exposure of preservice teachers to school and classroom settings, providing them with the most effective combination of opportunities for their development and the ability to assess and decide whether the profession is appropriate for them.

The Advisory Group takes the view that the role of supervising teacher should be undertaken only by highly skilled teachers. Years of experience should not be the only consideration when selecting such teachers, as there are outstanding early career teachers well suited to the role. This approach would ensure that pre-service teachers have the best available support throughout their teaching practice, and that supervising teachers have the skills and abilities to ensure pre-service teachers' experiences are integrated into all aspects of the school.

Recommendations

In the area of professional experience, the Advisory Group recommends that

19. Higher education providers deliver integrated and structured professional experience throughout initial teacher education programs through formalised partnership agreements with schools.
20. Higher education providers guarantee that sufficient placements of appropriate timing and length are available for all pre-service teachers.
21. Higher education providers ensure pre-service teachers have early opportunities to assess their suitability for teaching, including through exposure to the classroom.
22. Higher education providers ensure staff delivering initial teacher education are appropriately qualified, with a proportion having contemporary school teaching experience.
23. Systems/schools be required to use the *Australian Professional Standards for Teachers* in identifying highly skilled teachers to supervise professional experience, and work with higher education providers to ensure rigorous, iterative and agreed assessment of pre-service teachers. The Australian Institute for Teaching and School Leadership develop guidelines to ensure supervising teachers have the skills required to be effective in the role.
24. School leaders actively lead the integration of pre-service teachers in the activities and culture of their school.

4. Assuring classroom readiness

Beginning teachers have responsibility for student learning from their first day in the classroom. This means they must be classroom ready upon entry to the profession. The *Australian Professional Standards for Teachers* (Professional Standards) provide a nationally agreed outline of the knowledge and skills required.

Initial teacher education providers are responsible for ensuring their graduates meet the Professional Standards. However, stakeholders report dissatisfaction with the skills and knowledge of beginning teachers. This calls into question the rigour of assessment by providers.

Assessment needs to align to the development and ongoing integration of theory and knowledge to classroom practice before graduation. There is a view that providers are not working effectively with schools to assess pre-service teaching practice and that robust evidence should be required to demonstrate the classroom readiness of graduates.

4.1 Classroom readiness

Accreditation of initial teacher education programs requires higher education providers to demonstrate that graduates meet the Graduate level of the Professional Standards. There is some concern that evidence requirements for this are inadequate and undermine quality assurance.

4.1.1 Current assessment practices

Once their courses are accredited, providers have autonomy to decide how they deliver their programs, how they determine whether pre-service teachers meet the required program outcomes and what type of evidence they collect to verify this.

In conventional practices of graduate assessment 'success in the teaching practicum and completion of the approved teacher education program combine to give a proxy assessment of the acquisition of the knowledge, attitudes and practices valued by the profession'.¹¹⁷ A limitation of this separated assessment approach is that it can prioritise on-campus learning over in-school assessment.¹¹⁸

The award of a qualification from an accredited program is accepted as evidence by teacher registration bodies that an individual has achieved the Graduate level of the Professional Standards.¹¹⁹ As part of teacher registration graduates must present evidence of their qualification but are generally not required to provide any further evidence of their skills or knowledge to obtain provisional registration.¹²⁰

For this system to provide sufficient assurance of classroom readiness, providers must conduct rigorous assessment of pre-service teachers against the Professional Standards. This requires that providers embed the knowledge, skills and competencies required by the Professional Standards into their programs and assessment practices. However, there is currently little indication that providers do this. It appears that some providers map the Professional Standards to their assessment criteria but do not collect the evidence to determine readiness for independent teaching against the Graduate level of the Professional Standards.

¹¹⁷ Ure, C., et al (2009), *Practicum Partnerships: Exploring Models of Practicum Organisation in Teacher Education for a Standards-Based Profession*, p.58

¹¹⁸ Bloomfield et al (2013), *Authentic Assessment in Practice Settings: A Participatory Design Approach: Final Report*, pp.30–31

¹¹⁹ Australian Institute for Teaching and School Leadership (2011a), p.4

¹²⁰ There are separate categories for teacher registration in Australia: provisional (or equivalent) for new graduates and full (or equivalent) for proficient teachers. All states and territories offer a provisional (or equivalent) type of registration, which is generally designed to give new graduates the opportunity to work in schools and gather the experience and evidence needed to transition to full registration.

Finding

Pre-service teachers are not consistently assessed to determine whether they have achieved the Graduate level of the Professional Standards at program completion.

4.1.2 Stakeholder views on classroom readiness

Current levels of graduate preparedness

The Advisory Group heard dissatisfaction from government employers¹²¹ about the quality of graduates entering the workforce. Victoria expressed concerns about the capacity of providers to produce graduates with the professional skills and knowledge required to teach in contemporary classrooms.¹²² Queensland identified a significant gap between school and system expectations and teacher education program provision.¹²³ Western Australia had concerns regarding the calibre of beginning teachers entering the workforce.¹²⁴ South Australia took the view that providers need to be held accountable for the quality of their graduates against the Professional Standards.¹²⁵

The Independent Schools Council of Australia felt that graduation from an initial teacher education program should be dependent on pre-service teachers meeting robust and rigorous standards of achievement.¹²⁶

These views are consistent with the findings of the 2013 Staff in Australia's Schools survey, where school principals and graduates reported inadequate preparation of beginning teachers for the realities of teaching. Early career teachers,¹²⁷ when asked about the helpfulness of their initial teacher education program, said they felt underprepared in knowing how to teach and assess students. These sentiments have been echoed by Victoria and Queensland in recent publications.¹²⁸

Stakeholders suggested that assessment of professional experience should be nationally consistent to ensure all graduates meet the Professional Standards.

Consultations identified that, given the changing nature of the teaching profession, the Graduate level of the Professional Standards should be reviewed regularly to ensure graduate skills, knowledge and capabilities reflect current evidence-based practice.

Findings

Teacher employers are dissatisfied with the classroom readiness of initial teacher education graduates.

The Graduate level of the Professional Standards needs to be reviewed regularly to equip beginning teachers to meet the demands of contemporary school environments.

121 Employers of government school teachers are the relevant state and territory departments of education. Employers of Catholic system school teachers are the relevant state and territory Catholic Education Offices, and independent schools are the employers of their teachers.

122 Victorian Department of Education and Early Childhood Development submission

123 Queensland Department of Education, Training and Employment submission

124 Western Australian Department of Education submission

125 South Australian Department of Education and Childhood Development submission

126 Independent Schools Council of Australia submission

127 Early career teachers are defined as those who have been teaching for five years or less.

128 Queensland Department of Education, Training and Employment submission and Victorian Department of Education (2012), *New Directions for School Leadership and the Teaching Profession—Discussion Paper*

Deficiencies in assessment practices

A number of stakeholders highlighted a need to strengthen assessment practices. One regulatory body noted that we need to ‘strengthen our ability to measure the knowledge and skills graduate teachers are mastering at key junctures through their course and their readiness to be admitted to the profession’.¹²⁹

A school sector organisation also supported a move to stronger pre-service teacher assessment practices. They suggested that ‘progression within and graduation from a teacher education course should be dependent on student teachers meeting robust and rigorous standards of achievement’. They would also ‘welcome measures to ensure that teacher education providers focus on the learning outcomes of student teachers to ensure graduate teachers have the required range of skills, habits and attributes to successfully begin to work as teachers, and continue to develop and be retained in the profession’.¹³⁰

Another submission recommended ‘the continuous and rigorous assessment of students of initial teacher education programs against the requirements of these [Professional] standards throughout their program, and in particular during their professional experience components’.¹³¹

Some employers noted tensions between schools and providers in assessing the professional performance of pre-service teachers. One employer suggested a need for moderation of benchmarks for assessing pre-service teachers across providers and schools.¹³² Additionally there is concern that supervising teachers are sometimes pressured to pass students who do not meet the required standard.

Findings

There is limited integration of assessment between on-campus and in-school learning.

Stakeholders advocated for strengthened assessment of pre-service teachers’ readiness for the profession.

4.2 Examples of good practice in graduate assessment

Consistency and transparency in assessment of graduate teachers’ classroom readiness, measured against agreed standards, is a feature of high-performing education systems internationally. There are pockets of innovative and authentic assessment in Australia but these approaches are not widely applied.

4.2.1 International practice

Internationally, various methods are used to assess the overall competency of teaching graduates, including certification examinations and portfolios of evidence. Consistent, evidence-based verification of readiness for teaching is emerging as a key theme.

Some jurisdictions in the United States are moving towards formative assessment with a summative examination to assess a graduate’s ability to integrate theory and practice. State-level examinations are used to assess readiness for the profession and eligibility for teacher licensure (registration). These may include tests taken early in the initial teacher education program to assess the basic skills and progress of the teacher education student through to completion of a ‘teaching event’ (such as the Performance Assessment for Californian Teachers).¹³³

129 Queensland College of Teachers submission

130 Independent Schools Council of Australia submission

131 Australian Education Union submission

132 Western Australian Department of Education submission

133 Performance Assessment for California Teachers (PACT) (2014), Performance Assessment for California Teachers

Some European countries are using e-portfolios as a tool to assist graduates in demonstrating their overall teaching competency. These portfolios are used for a variety of purposes, including demonstrating the achievement of national standards for teacher registration.¹³⁴ Singapore has introduced an e-portfolio assessment tool to assess the achievement of teacher education students against the national teacher competency framework.¹³⁵

4.2.2 Innovative Australian models of graduate assessment

In Australia there has been increasing recognition of the limitations of conventional methods of assessment, with a shift towards more diverse and authentic assessment mechanisms, including peer and self-assessment, portfolios, electronic media and collaborative assessment.¹³⁶ In teaching more authentic assessments would consider 'the actual knowledge, skills and dispositions required of teachers as they are used in teaching and learning contexts'.¹³⁷

Deakin University developed an Authentic Teacher Assessment model that involves pre-service teachers planning and teaching a sequence of five to eight lessons during their professional experience. They collect examples of their planning and teaching tools, student work samples, videos of their teaching, and written reflections as evidence of meeting the standards of practice.¹³⁸

The University of Melbourne has an integrated assessment model that involves a clinical practice examination and practicum exhibition. The assessment is carefully designed to evaluate the pre-service teacher's integration of on-campus learning into their teaching. It tests the rigour of evidence-based decision-making and teaching strategies of the pre-service teacher when teaching a student with a particular learning challenge in the context of a whole class.¹³⁹

The University of Canberra and the Australian Catholic University (Canberra campus) have a *Professional Conversations Guide* to promote shared responsibility between universities and schools in graduate assessment. It includes an assessment framework to achieve consistency across the two institutions and in the schools offering professional experience placements.¹⁴⁰

4.2.3 Graduate assessment in other professions

Graduate assessment against professional standards is typical in other professions that require registration and allow independent practice upon graduation. For example, physiotherapy degrees generally use a standardised assessment tool to measure the student's practical demonstration of the professional standards. The tool was developed cooperatively by universities across Australia and allows for comparison of outcomes across universities. Occupational therapy degrees also use a standardised evaluation tool based on professional standards. It was developed through extensive national collaboration and is widely accepted across Australia.

Research commissioned by the Australian Learning and Teaching Council identified a need for an assessment framework, aligned to the Professional Standards, to guide assessment of pre-service teacher development and performance. The report recommended formative and summative criteria for assessing progress toward each of the elements of the Professional Standards as well as indicators to determine whether pre-service teachers meet the Graduate level of the Professional Standards.¹⁴¹

Findings

Innovative models for assessment of classroom readiness are increasing but have not been widely implemented.

Consistent and transparent graduate assessment against an agreed benchmark is a key feature of profession entry requirements both internationally and in comparable professions in Australia.

134 Queensland College of Teachers (2012), p.34

135 National Institute of Education, Singapore (2010), *A Teacher Education Model for the 21st Century (TE21)*, p.10

136 Boud, D (2010), *Student Assessment for Learning in and After Courses: Final Report for Senior Fellowship*, Australian Learning and Teaching Council, p.5

137 Queensland College of Teachers (2012), p.26

138 Queensland College of Teachers (2012), pp.54–57

139 McLean Davies, L., Anderson, M., Deans J., Dinham S., Griffin P., Kameniar B., Page J., Reid C., Rickards F., Tayler C. and Tyler, D. (2013), *Masterly Preparation: Embedding Clinical Practice in a Graduate Pre-Service Teacher Education Programme*

140 Office of Joy Burch, MLA, submission

141 Ure, C. et al (2009), p.6

4.3 Strengthening assurance of classroom readiness

The Advisory Group is concerned that not all pre-service teachers are currently assessed against the nationally agreed Professional Standards, which could ensure consistency, rigour and reliability in the graduate assessment process. Providers do not follow a transparent or consistent framework for assessment of classroom readiness and are not held accountable for the quality of their assessment. The Advisory Group believes that this lack of accountability allows providers to graduate pre-service teachers who do not meet the Graduate level of the Professional Standards.

Providers should be required to consistently and rigorously assess the classroom readiness of their pre-service teachers against the Professional Standards. They should collect robust evidence that helps pre-service teachers produce a Portfolio of Evidence to substantiate their readiness for teaching and application for provisional registration. Provisional teacher registration should be granted only if a graduate has demonstrated their teaching capability against the Professional Standards.

Rigorous assessment of classroom readiness needs to involve providers and schools working in partnership throughout initial teacher education programs. This includes determining the pre-service teacher's ability to effectively integrate theory and teaching practice and assisting them to collect supporting evidence.

The consultation demonstrated clear support for reforming the way pre-service teachers are assessed to determine achievement of the Graduate level of the Professional Standards. Suggested reforms include more integrated assessment of professional experience, the use of sophisticated assessment tools to provide evidence of classroom readiness, and closer alignment of assessment to the Professional Standards. Assessment of pre-service teachers should not be one-dimensional or occur at a single point in time but should address the complex interaction between providers, schools, program content and the Professional Standards.

The Advisory Group expects the Graduate level of the Professional Standards to provide a sufficient and up-to-date benchmark of the expectations of graduates entering the profession. Given the evolving nature of teaching, the Advisory Group emphasises the importance of regularly reviewing and updating the Graduate level of the Professional Standards to ensure the currency of the skills, knowledge and capabilities required for beginning teachers.

Recommendations

In the area of assuring classroom readiness, the Advisory Group recommends that

25. Higher education providers assess all pre-service teachers against the Graduate level of the Professional Standards.
26. The Australian Institute for Teaching and School Leadership develop a national assessment framework, including requirements for a Portfolio of Evidence, to support higher education providers and schools to consistently assess the classroom readiness of pre-service teachers throughout the duration of their program.
27. Pre-service teachers develop a Portfolio of Evidence to demonstrate their achievement of the Graduate level of the Professional Standards.
28. Higher education providers and schools work together to assist pre-service teachers to develop and collect sophisticated evidence of their teaching ability and their impact on student learning for their Portfolio of Evidence.
29. The Australian Institute for Teaching and School Leadership undertake a review of the Graduate level of the Professional Standards to ensure that the knowledge, skills and capabilities required of graduates align with the knowledge, skills and capabilities beginning teachers should have.

5. Supporting beginning teachers

The challenge of developing effective teachers does not end at graduation. The early years in the classroom are critical to the development of a beginning teacher's practice. School-based induction is a comprehensive process that guides a beginning teacher into the profession. Evidence shows that effective induction can lead to increased retention of new teachers in the profession and improved student learning in schools.

The knowledge and skills pre-service teachers develop through their initial teacher education must be fostered and extended once they enter the profession. Comprehensive induction programs are needed to support the transition from graduate teacher to proficient teacher. There is concern that currently employers and schools are not consistently working together to effectively support beginning teachers to reach the Proficient level of the Professional Standards in the important early years in the profession.

5.1 Expectations and support of beginning teachers

Graduate teachers are granted provisional registration (or equivalent) by a state or territory teacher regulatory body following completion of a teaching qualification. During the next few years in the classroom, the beginning teacher is expected to work towards full registration at the Proficient level of the Professional Standards.¹⁴²

The Professional Standards describe the expected development of teaching skills from Graduate level to Proficient level in terms of knowledge, practice and professional engagement. In most cases, evidence of achieving Proficient level is presented and assessed at the school, with no input from higher education providers and limited input from employers. The assessment may require presentation of a portfolio of evidence of teaching skills, but this is an inconsistent practice.

5.1.1 Current induction practices

Building a comprehensive picture of teacher induction in Australia is challenging, given an absence of data. Induction activities may include assignment of a mentor, participation in structured graduate teacher programs, or release time for beginning teachers. All state and territory education departments have induction policies, but the resulting support for beginning teachers varies widely.

Some employers, including Victoria and Western Australia, offer highly structured, centralised programs in conjunction with their local professional learning institutes. In New South Wales and South Australia, responsibility for induction rests with individual schools. The period of formal induction ranges from one year in Victoria to three years in the Australian Capital Territory. There is limited information publicly available about induction practices in non-government schools.¹⁴³

Structured and supported mentoring is a feature of some induction strategies, but this is not uniform. The role of mentoring teachers is largely an unrecognised and untrained one, with little support provided for developing the requisite mentoring skills.¹⁴⁴ Many schools use experienced teachers who may not receive the formal training required to provide high-quality mentoring.

142 Australian Institute for Teaching and School Leadership (2011b), p.2

143 Australian Institute for Teaching and School Leadership (2014b), *Induction of Beginning Teachers: A Scan of Current Practice in Australia*, p.16

144 Hudson, P., Spooner-Lane, R. and Murray, M. (2013), *Making Mentoring Explicit: Articulating Pedagogical Knowledge Practices*, pp.284–301

There are examples in Australia of provider-school partnerships being used to support beginning teachers. For instance the University of Notre Dame Australia works with partner schools to train 'Heads of Professional Practice'.¹⁴⁵ Principals nominate a senior staff member for the role, which involves undertaking a Masters unit in mentoring and coaching beginning teachers. The unit, which can be credited to further study in a Masters degree, covers induction, classroom supervision, feedback and reflective practice, mentoring and building collegial relationships. This training extends to the supervision of pre-service teachers undertaking professional experience placements.

The approach used in teaching contrasts with other professions in Australia. Professions such as law, nursing and medicine provide substantial in-service induction and continuing professional development opportunities that are highly structured and carefully monitored to provide a supported process of entry to the profession. In health professions such as nursing, providers are required to register all pre-service students so they are covered by the same codes of practice and guidelines as fully qualified practitioners. A similar approach in teaching could provide pre-service teachers with early engagement in the culture of the professional community as well as opportunities for additional professional learning.

Findings

There is no profession-wide approach to supporting teacher development in the important early years in the classroom.

The quality and quantity of induction support varies across states and territories, sectors and schools.

Employers and schools are not consistently offering effective support for beginning teachers through their transition to proficiency and full registration.

5.1.2 Stakeholder views on induction

Beginning teachers often cite a lack of adequate support in their early years as a key reason for leaving the profession.¹⁴⁶ They report inadequate mentoring and supervision, lack of support in behaviour management, excessive responsibilities and failure to recognise and reward professional growth.¹⁴⁷ By the second year out of university, as many as 29 per cent of new teachers may already be considering leaving the profession.¹⁴⁸

Stakeholders suggested that providers, employers and schools need to work together to effectively support beginning teachers through their transition to proficiency. One survey found that more than half of beginning teachers had not participated in formal mentoring or an ongoing induction process.¹⁴⁹ Stakeholders advised that the use and quality of mentoring for beginning teachers is highly variable.

The Advisory Group heard particular concerns about insufficient induction for beginning teachers in temporary employment. Recent evidence shows that a high proportion of beginning teachers are employed on a non-ongoing basis, either on short-term contracts or as casual relief teachers.¹⁵⁰ In many cases, these teachers do not receive the same support in the early years as those employed on an ongoing basis.

Some stakeholders also expressed concerns about the adequacy of induction practices for beginning teachers in rural, remote or 'hard to staff' schools.¹⁵¹

¹⁴⁵ University of Notre Dame Australia submission

¹⁴⁶ Queensland College of Teachers (2013), *Attrition of Recent Queensland Graduate Teachers*, p.14

¹⁴⁷ McCormack, N. (2005), *Mentoring the Ongoing Professional Learning of Early Career Teachers*, pp.10–17

¹⁴⁸ O'Brien, P., Goddard, R. and Keffe, M. (2008), *Burnout Confirmed as a Viable Explanation for Beginning Teacher Attrition*, p.10

¹⁴⁹ Australian Education Union (2008), *Beginning Teacher Survey 2007: Results and Report*, p.4

¹⁵⁰ McKenzie, P., Rowley, G., Weldon, P., Murphy, M. and McMillan, J. (2014), Table 5.1 indicates that around 40 per cent of primary teachers aged 25 or less were employed on an ongoing basis, compared to over 70 per cent of primary teachers in the age groups 26–45, and over 80 per cent of primary teachers in age groups 46 and above.

¹⁵¹ Australian Education Union submission

Several states and territories have recognised a need for improving support for beginning teachers. New South Wales plans to provide greater support to beginning teachers by restructuring their responsibilities, implementing mentoring, and improving access to induction for casual and short-term temporary teachers.¹⁵² In Victoria, schools in all sectors will be required to commit to 'developing stronger induction and career plans for new entrants', including early career mentoring.¹⁵³

Queensland intends to improve the transition from pre-service to beginning teacher through effective supervision, mentoring and induction.¹⁵⁴ In Western Australia, beginning teachers will take part in a mandatory two-year Graduate Teacher Professional Learning Program. These beginning teachers will receive support from a mentor and be entitled to additional release time for planning, meetings with mentors and participation in professional learning.¹⁵⁵

Some stakeholders advocated for increased involvement of providers in the induction period. For example, it was suggested that providers could play a role post graduation in ensuring that their graduates successfully enter the teaching profession, and that professional experience supervisors could maintain contact with beginning teachers throughout their induction.¹⁵⁶

The Australian Council of Deans of Education proposed the extension of initial teacher education into the first two years of teaching through formal, structured induction and accredited professional learning programs leading to a national Graduate Certificate in Professional Teaching. Through this model, schools could benefit from the knowledge, research and expertise of teaching institutes and the higher education sector.¹⁵⁷

The importance of school leaders in supporting induction was noted in consultations. Stakeholders advised that effective induction depends on school leaders recognising the benefits of induction not only for beginning teachers but also in developing the culture of teaching practice throughout the whole school. Induction of beginning teachers is a clear opportunity for schools and providers to work more effectively and cohesively to benefit beginning teachers, mentor teachers and students in the school.

Findings

Stakeholders have identified a need for improved support for beginning teachers, including mentoring by highly skilled teachers.

There is concern that induction support is inadequate for beginning teachers in temporary employment and in 'hard to staff' schools.

152 New South Wales Department of Education and Communities (2014), *Great Teaching Inspired Learning, Entry to the Profession* NSW

153 Victorian Department of Education and Early Childhood Development, Victoria (2013), *From New Directions to Action: World Class Teaching and School Leadership*

154 Queensland Department of Education, Training and Employment (2012), *A Fresh Start—Improving the Preparation and Quality of Teachers for Queensland Schools*

155 Western Australia Department of Education (2014), *The Graduate Teacher Induction Program*

156 Australian Primary Principals Association submission

157 Australian Council of Deans of Education submission

5.2 Research and international practice

The transition between graduation and full registration as a teacher can play a crucial role in determining how well and for how long beginning teachers will teach.¹⁵⁸ Participating in comprehensive teacher induction programs can have a positive impact on a teacher's commitment and attitude to the profession and on teacher retention.¹⁵⁹ Beginning teachers who receive structured induction programs are more likely to undertake ongoing professional development activities.¹⁶⁰ They also perform better at aspects of teaching such as keeping students on task, using effective student questioning practices and demonstrating successful classroom management.¹⁶¹ Importantly, there is a correlation between induction and enhanced student achievement,¹⁶² with evidence that beginning teachers who receive mentoring support deliver higher student achievement.¹⁶³

Internationally induction practices vary, even among the world's best performing education systems.¹⁶⁴ Common elements include a structured, consistent approach to supporting beginning teachers and an emphasis on mentoring by skilled and experienced teachers.

In New Zealand, all provisionally registered teachers must complete a comprehensive induction program to gain full registration. Mentoring is an essential element of this process. The Guidelines for Induction and Mentoring and Mentor Teachers set out a clear framework for the provision of high-quality, consistent and comprehensive support for provisionally registered teachers in the first years of practice.¹⁶⁵

In Ontario, Canada, each beginning teacher has a mentor and a personalised induction strategy. Mentors are experienced teachers who undertake specific training to become a mentor. Support focuses on critical areas for beginning teachers, including literacy and numeracy, classroom management, assessment, parental engagement and meeting the needs of diverse learners.¹⁶⁶

Beginning teachers in Shanghai, China, have two mentors, one for subject-specific teaching skills and one for classroom management. Induction also includes participation in group research projects, courses and seminars, and additional support for those who are struggling. The role of experienced teachers in supporting the development of new teachers is a core part of a teacher's job description. It is a criterion for promotion and is also considered an important part of building a culture of shared professional responsibility.¹⁶⁷

Findings

Effective induction is critical to successful transition into classroom teaching practice. It includes structured mentoring, observation and feedback.

High-performing and improving education systems demonstrate a commitment to structured support for beginning teachers in their transition to full professional performance and, in doing so, build and sustain a culture of professional responsibility.

158 Buchanan, J. Prescott, A. Schuck, S. Aubusson, P. Burke, P. and Louviere, J. (2013), *Teacher Retention and Attrition: Views of Early Career Teachers*, p.115

159 Ingersoll, R.M. and Strong, M. (2011), *The Impact of Induction and Mentoring Programs for Beginning Teachers: A Critical Review of the Research*

160 OECD (2014), p.105, Table 4.11

161 Ingersoll, R.M. and Strong, M. (2011)

162 Bartlett, L. and Johnson, L. (2010), *The Evolution of New Teacher Induction Policy: Support, Specificity, and Autonomy*, as cited in Kearney, S., *Understanding the Need for Induction Programmes for Beginning Teachers in Independent Catholic Secondary Schools in New South Wales* (2010), p.5

163 Rockoff, J. (2008), *Does Mentoring Reduce Turnover and Improve Skills of New Employees? Evidence from Teachers in New York City*; and Glazerman et al (2010), *Impacts of Comprehensive Teacher Induction: Final Results from a Randomised Controlled Study*

164 Hay Group (2013), *Building the Right Foundation: Improving Teacher Induction in Australian Schools*, p.22

165 New Zealand Teachers Council (2011), *Professional Learning Journeys Guidelines for Induction and Mentoring and Mentor Teachers*

166 OECD (2011), *Lessons from PISA for the United States: Strong Performers and Successful Reformers*

167 Jensen, B., Hunter, A., Sonnemann, J. and Burns, T. (2012), p.81

5.3 Improving induction for beginning teachers

The Advisory Group considers that it is the role of schools, school systems and teacher employers to ensure that structured induction programs are in place for all beginning teachers and that highly skilled teachers are appointed as mentors. Schools and the profession have a fundamental responsibility to develop beginning teachers to full professional proficiency.

The Advisory Group identified that, in countries that have implemented effective and comprehensive induction processes, induction forms part of a wider culture of responsibility to the profession and a focus on continuous professional learning. These international models of effective practice are built on a view that induction makes a positive contribution to the culture of learning that exists within a school.

Improved induction depends on a strong and supportive school culture that directs resources to ongoing professional learning. Effective mentoring can support mutually beneficial professional learning and influence a teacher's future participation in a wider variety of professional development activities.¹⁶⁸ The practice of reciprocity, or 'giving back' to the profession, has broad and long-term positive impacts for teachers, schools and students. Accepting a mentoring role with beginning teachers can help teachers keep their practice up to date and promote collaboration and shared learning. School leaders who feel empowered to lead and innovate play a vital role in creating and sustaining a culture of improvement.

The Advisory Group believes that induction should assist beginning teachers to gather evidence of their professional practice and work towards full teacher registration. Continuing to build a Portfolio of Evidence will enable beginning teachers to verify their teaching practice and demonstrate achievement of the Proficient level of the Professional Standards in order to attain full registration.

Addressing the variability of support offered to beginning teachers, including those in 'hard to staff' schools, will require a national approach underpinned by evidence of good practice. The Advisory Group considers that the Australian Institute for Teaching and School Leadership is well placed to develop guidelines for beginning teacher induction and a comprehensive approach to the collection of evidence for attaining full registration.

Recommendations

In the area of supporting beginning teachers through induction, the Advisory Group recommends that

30. The Australian Institute for Teaching and School Leadership develop national guidelines for beginning teacher induction that will guide consistent implementation of effective induction programs.
31. School systems and employers provide effective induction for all beginning teachers, including those employed on a short-term or casual basis.
32. Schools identify highly skilled teachers to mentor, assess and guide beginning teachers from provisional registration to full registration.
33. Beginning teachers build on their Portfolio of Evidence to reach full registration at the Proficient level of the Professional Standards.

168 OECD (2014), *TALIS 2013*, p.105

6. Strengthening national capability

Australia must develop the capability to drive strong, evidence-based practice in initial teacher education, and to effectively manage its teaching workforce. Better evidence of the effectiveness of initial teacher education is needed to inform innovative program design and delivery, and the continued growth of teaching as a profession. In order to meet the needs of Australian classrooms, providers and school systems need clear information on the characteristics of pre-service teachers in initial teacher education programs and teachers in the workforce.

Education research and workforce planning are critical to strengthening the teaching profession. These areas pose a national challenge. The Australian Government must provide national coordination and leadership to address this challenge and to promote a culture of high expectations and best practice.

6.1 National research and evidence base

6.1.1 Key issues

Stakeholders stated that initial teacher education programs must be designed and delivered based on approaches identified through research as effective. The challenge for higher education providers is a lack of research that examines teaching practices and initial teacher education methodologies that have a positive impact on student outcomes.¹⁶⁹ Without a strong evidence base to inform and improve program design and delivery, there is no imperative for the continual reflection and improvement of teacher education programs by providers. In contrast, there is significant research on the development of expertise in other professions.¹⁷⁰

Research commissioned by the Advisory Group highlighted the paucity of information about the performance of teacher education programs in this country. As a result, research requested for this report to benchmark Australian programs against high-performing international programs known to impact positively on student outcomes was problematic.

Research undertaken through Australian Government grant programs, such as those offered by the Office for Learning and Teaching, has to date provided little evidence about the effectiveness of initial teacher education. A national approach to this research would better harness the research effort to achieve agreed goals and make available evidence of effectiveness to drive continuous improvement of programs.

¹⁶⁹ A comprehensive review commissioned by the Scottish Government found 'few longitudinal, large-scale studies' internationally and observed that "the research base on teacher education is fragmented and non-cumulative". Menter, I., Hulme, M., Elliott, D. and Lewin, J. (2010), *Literature Review on Teacher Education in the 21st Century*, p.3,

¹⁷⁰ Schmidt, H. and Rikers, R. (2007), *How Expertise Develops in Medicine: Knowledge Encapsulation and Illness Script Formation*

6.1.2 Stakeholder views on research

Stakeholders agreed that better information is needed on the performance of initial teacher education programs in Australia. Developing better information will require further investment in research on program effectiveness. Stakeholders proposed that a national centre for teacher education excellence be established to bring together academic and school experts to jointly invest in research. This would assist in identifying and disseminating best practice in initial teacher education that explicitly supports student learning.¹⁷¹

To assist with research into program effectiveness, stakeholders also suggested linking data from providers to teacher registration and employment data to allow a better understanding of the development of pre-service teachers from program commencement and into employment.

Finding

There is a lack of research into the effectiveness of initial teacher education in Australia.

6.1.3 International practice

A number of countries have established organisations designed to research and evaluate the effectiveness of initial teacher education programs to assure the quality of beginning teachers. The Council for Accreditation of Educator Preparation (CAEP) in the United States is an accrediting body serving over 900 educator preparation providers. The CAEP promotes best practice, standards-based teacher education and outcomes-based accreditation.¹⁷² One goal of the organisation is to 'develop and implement an agenda for research and innovation to foster continuous improvement in educator preparation'.¹⁷³

In Singapore, the National Institute of Education established the Office of Education Research with the aim of facilitating the 'governance, planning, monitoring, quality assurance and dissemination of education research'.¹⁷⁴ This model brings together educators, administrators and researchers to develop innovative ways of teaching and learning.

Finding

Internationally there is a developing focus on research and evaluation of initial teacher education programs to improve program design and delivery.

6.1.4 Building a national research base

The Advisory Group believes that to achieve continuous improvement and strengthened quality assurance of initial teacher education programs a better understanding of their impact and effectiveness is required. This includes assessment of program impact on student outcomes. Research into the effectiveness of Australian programs is needed to build a solid evidence base.

Developing a strong evidence base is a responsibility shared between the Australian Government, providers, school systems and schools. Research should inform collection and analysis of student data and teaching practices that will improve student outcomes.

The Advisory Group believes that a national focus on research into the effectiveness of initial teacher education programs is needed. Research should focus on building an evidence base to inform the design of initial teacher education programs and teacher professional development. Areas of particular research interest could include longitudinal analyses of the effectiveness of initial teacher education programs; pre-service teacher selection; pathways through initial teacher education; graduate

171 Australian Council of Deans of Education submission

172 Ingvarson, L., Reid, K., Buckley, S., Kleinhenz, E., Masters, G. and Rowley, G. (forthcoming), *Best Practice Teacher Education Programs and Australia's Own Programs*, Australian Council for Educational Research, pp.13–14

173 Council for the Accreditation of Education Preparation (2014)

174 National Institute of Education, Singapore (2014), *About OER, Office of Education Research*

standards and teacher effectiveness in early career; and subject matter and pedagogical knowledge. Further, ongoing monitoring of the impact of introduced reforms will be important to determine whether they are having a positive impact on student outcomes and to inform continuous improvement of initial teacher education.

The Australian Government should work closely with higher education providers, the Office for Learning and Teaching and the Australian Research Council to ensure that grants awarded for research related to initial teacher education support the development of a strong evidence base. Partnerships between systems, schools and providers provide an ideal opportunity for mutually beneficial research to be conducted with all parties co-investing to benefit the quality of initial teacher education.

6.1.5 Sharing innovation

Identifying and sharing innovation and research nationally has the capacity to boost the quality of initial teacher education in Australia. The consultations of the Advisory Group confirmed that good practice in initial teacher education is occurring across the country; however, it is not widely known or shared.

Fostering a culture of continuous improvement in initial teacher education can be assisted by sharing research findings and innovative practice. Areas of interest include cost-effective program delivery and the use of technology to enhance learning for both pre-service teachers and students. The following examples of innovative practices across initial teacher education were provided by stakeholders during the consultation process.

Program delivery models

A number of stakeholders cited the use of teaching schools or centres aimed at enhancing learning in initial teacher education programs. La Trobe University has established a program where pairs of pre-service teachers work in classrooms with mentor teachers for two days each week for the entire school year.¹⁷⁵ Through this program, pre-service teachers can routinely put theory into practice, monitor student learning over a longer period of time and reflect on how their teaching practice could be improved to promote positive learning outcomes.

The internship program at Kingston Primary School in Western Australia aims to ensure there are highly trained graduate teachers who are experienced in and committed to teaching in a rural Western Australian setting.¹⁷⁶ The program allows participants to complete their qualifications while working full time in a school. Fourth-year initial teacher education students are merit selected from partner universities to complete their final year of study on site at the school. In semester one, interns gain valuable school-based learning and complete their professional experience. In semester two, they are granted a limited authority to teach, which allows them to work as paid relief teachers at the school.

Another model will be offered at the University of Melbourne in 2015 through a Master of Teaching (Secondary) Internship program. This will be an employment-based program that uses a clinical teaching model. During the three-year program participants will complete initial on-campus study followed by placement in a partner school. Participants will be employed by the partner school and commence teaching on a reduced teaching load while continuing their academic qualifications. Participants will be supported by supervisors, mentors and coaches, and transition to a full teaching load in the final year of the program.

The 'Growing Our Own' Indigenous teacher education program is an example of an integrated approach to initial teacher education that targets remote Indigenous communities. The program is delivered in partnership by Charles Darwin University and Catholic Education in the Northern Territory. Employer-sponsored Indigenous pre-service teachers work in schools in Santa Therese, Wadeye, Daly River and Bathurst Island. Participants study accredited four-year undergraduate programs in their communities, and are supported by online course materials and academic staff who visit and lecture in schools.¹⁷⁷

Using technology to enhance learning

Submissions received during the consultation process suggested that delivery of initial teacher education could be enhanced through the use of technology. Research presented to the Advisory Group investigated how technology could be used to better prepare pre-service teachers to get most benefit from their professional experience and assist in integrating theory and practice.

¹⁷⁵ Young, L. (2014), 'Trainee Teachers Take to School', *The Age*, 9 June 2014

¹⁷⁶ Kingston Primary School submission

¹⁷⁷ Charles Darwin University submission

Stakeholders reported that the use of digital technology to organise teaching resources and support learning experiences is common. Learning management systems are used to manage digital resources like course documents, links to library resources, lecture slides and recordings, online discussion forums and other materials.

Learning management systems can link to resources such as those found on the Australian Institute for Teaching and School Leadership (AITSL) website. These include *Illustrations of Practice* and *Great Teaching Ideas*, which provide examples of lessons and classroom activities from current teachers. Digital resources such as *Teachers TV* and the *Teaching Channel* provide videos of effective teaching practices. Resources like this are useful in exposing pre-service teachers to challenging classroom situations and in illustrating ideas and techniques for student management and approaches to teaching.

Some stakeholders suggested that online forums which enable rich discussion and reflection are particularly useful when they are implemented in ways that encourage all students to have a voice. Digital technologies may also be useful in developing pre-service teachers' understanding of particular aspects of their teaching practice. Programs such as the *Learning Activity Management System* may assist pre-service teachers in areas like lesson planning.¹⁷⁸ These technologies enable pre-service teachers to share, critically analyse and reflect on the lessons of other teachers.

Finding

There is a lack of sharing nationally of innovative approaches in initial teacher education.

The Advisory Group takes the view that innovations and practices that have a demonstrable impact on student learning need to be identified and shared nationally. The dissemination of innovative and effective practice could easily be incorporated into an expanded function of AITSL to complement a national focus on research into teacher education.

Recommendation

In the area of research and evaluation, the Advisory Group recommends that

34. The Australian Institute for Teaching and School Leadership's functions be reconstituted and expanded to provide a national focus on research into teacher education, including into the effectiveness of teacher preparation and the promotion of innovative practice.

6.2 Workforce planning

6.2.1 Key issues

There is a growing public expectation of consistency in teaching and learning across state and territory borders and a view that teaching is a national profession.

Providers and employers recognise a need for closer alignment between the number and profile of pre-service teachers and the number and profile of teachers needed in Australian classrooms. There are also calls from employers for the Australian Government to implement strategies—such as changes to university funding arrangements or national scholarship schemes—to influence the market balance between teacher supply and demand.

The complexity of the Australian teaching workforce has led to the collaborative work of all Australian governments to invest in the National Teaching Workforce Dataset (NTWD) and the Staff in Australia's Schools (SiAS) survey. The NTWD brings together key data on the teaching workforce, sourced from teacher employers and regulatory authorities. SiAS is a national sample survey of teachers and school leaders that provides data on a wide range of teacher characteristics and workforce issues.

¹⁷⁸ Cameron, L. (2006), *Picture This: My Lesson*. How LAMS is being used with pre-service teachers to develop effective classroom activities. In Philip, R., Voerman, A. and Dalziel, J (eds), *Proceedings of the First International LAMS Conference 2006: Designing the Future of Learning*, pp.25–34.

Despite these efforts, there remains a lack of clarity on the Australian teaching workforce. For example, there is a common perception that the teaching workforce is experiencing widespread shortages. In looking at this, the Advisory Group found that workforce data available were incomplete and in part conflicting. The NTWD estimates there is currently a surplus of teachers in Australia, with about 62,000¹⁷⁹ teachers who are registered but not recorded as employed.¹⁸⁰

Further, estimates based on the NTWD indicate that only around 50–60 per cent of graduates from 2007–2010 are currently in known employment and around 20 per cent are registered to teach but are not in known employment. This suggests that a large number of graduates are not employed as teachers. However, it does not provide an indication of whether graduates are seeking employment as a teacher or whether they have chosen to leave the profession.

Employment growth projections by the Australian Government Department of Employment indicate that the primary teaching workforce will have strong growth from 2012 to 2017 and the secondary teaching workforce will experience moderate growth for the same period.¹⁸¹ Overall analysis suggests no significant or widespread shortages of primary or secondary school teachers. However, SiAS shows some employers report difficulty recruiting secondary school teachers for particular specialisations such as senior mathematics, science and languages, and recruiting in some rural areas and in special education.

What is clear is that the workforce data that currently exist do not provide a sufficiently clear picture of the levels of supply and demand at a national, sector or individual subject level. Data on pre-service teachers are inadequate to clearly show the profile of future cohorts of beginning teachers. To support the continued development of a high-quality and well-prepared profession, we need commitment to collecting comprehensive national initial teacher education and workforce data.

Finding

Available workforce data are inconsistent. Some employers report a significant oversupply of teachers, and others report ongoing recruitment difficulty.

6.2.2 Specific workforce challenges

The Advisory Group found that the data on specific types of shortages were supported by reports of challenges for teacher supply in specific subjects—science, mathematics and languages—and in staffing regional and remote schools.

Teacher regulatory authorities do not record areas of specialisation as part of teacher registration. Consequently, employers do not have information on the number of teachers prepared for and working in specific subject areas. This limits the ability of employers to respond to workforce shortages or providers to respond to employer market demand.

In the absence of strong data to inform workforce planning, employers often address staffing shortages and lack of specialisation by using out-of-field teaching. In SiAS 2013, 33 per cent of secondary school principals indicated that they required teachers to teach outside their field of expertise to deal with teacher shortages. Further, 19 per cent of secondary school principals indicated that they recruited teachers who were not fully qualified in subject areas where there were acute shortages.¹⁸² SiAS also shows that in 2013:

- around 30 per cent of primary language teachers and 50 per cent of primary special education teachers had not completed at least one year of tertiary study in that specialisation
- around 40 per cent of information technology teachers and 20 per cent of general science teachers taking years 7 to 10 classes had not completed at least one year of tertiary study in that area.

179 Ernst and Young (Willet, M., Segal, D. and Walford, W.), (2014), *National Teaching Workforce Dataset: Data Analysis Report 2014*, p.136. Ernst and Young estimate that about 62,000 of 126,522 'additional registrants' are thought to be actually employed as teachers, but cannot be identified as such through employment records included in the National Teacher Workforce Dataset.

180 The National Teacher Workforce Dataset has been designed to provide an understanding of school teaching workforce across Australia and provide an insight into the dynamics of the largest professional workforce in the country. There are numerous caveats that must be recognised when using this data, as not all registration and employment data custodians were able to provide data on all items.

181 Department of Employment (January 2014), *Australian Labour Market Update*, p.7

182 McKenzie, P., Rowley, G., Weldon, P., Murphy, M. and McMillan, J. (2014), Table 12.12

While the current workforce data do not provide a full picture of staffing in remote, rural and regional schools, the NTWD does indicate that the median age of teachers is lower in remote and very remote schools.¹⁸³ The working conditions for teachers in rural, remote and low socio-economic status (SES) schools are generally considered to be more challenging, making them more difficult to staff. These challenges include reduced access to educational facilities and personal amenities, a greater sense of social isolation and sometimes less satisfactory living arrangements.¹⁸⁴

Gaps in data mean employers are unable to make accurate workforce projections mapped to specific employment demand. Providers are therefore unable to design their programs or match graduate supply to an accurate level of employer demand at a state and territory or national level. This lack of data also limits the ability of pre-service teachers to make informed career decisions.

There are examples in Australia of higher education providers targeting the workforce needs identified by employers. One is the Queensland University of Technology's (QUT) Exceptional Teachers for Disadvantaged Schools program.¹⁸⁵ As part of the program, QUT identifies high-quality pre-service teachers to participate in a specialised curriculum targeting teaching in low-SES schools. In partnership with the Queensland Department of Education, Training and Employment and key low-SES schools, QUT channels participating pre-service teachers into sites where they are likely to have the greatest impact and encourages them to select employment in these areas.

In addressing supply and demand, the Advisory Group believes there is a role for the Australian Government to find ways to increase attraction of students from required disciplines to initial teacher education. It has been suggested that influencing the quality of graduates entering the profession can best be achieved by increasing the pool of candidates interested in teaching, and selecting those best suited. It is the Advisory Group's view that, following clarification of reforms to higher education funding, targeted mechanisms to incentivise entry to initial teacher education should be pursued. These should be targeted to priority areas including science, mathematics and languages. For these mechanisms to be effective we need a better understanding of the workforce for which they are being prepared.

Findings

Teacher shortages continue to be reported in the subject areas of science, mathematics, and languages, and in 'hard to staff' schools in regional, remote and low socio-economic areas.

The most common employer response to these shortages is to have teachers work outside their field of expertise. This is likely to have implications for the quality of instruction students are receiving.

Targeted long-term interventions may be required to attract more high-quality entrants to address staffing challenges in specialist subject areas.

6.2.3 Stakeholder views on workforce data

The collection and analysis of teacher workforce data is inconsistent and must be improved. Improved data would allow providers to be more responsive to employer needs, to allow earlier identification of emerging gaps and shortages in the workforce, and to avoid issues of oversupply.

Some stakeholders viewed strengthened registration processes, including registration at the point of program commencement, as an effective way to improve data collection. The Deans of Education representative body noted that, at present, there is no way to collect and monitor 'even the most basic data needed such as age, gender, languages spoken, qualifications and professional specialisation, retention in the profession, and professional development participation'.¹⁸⁶

183 Ernst and Young (2014), p.72

184 Productivity Commission (2012), p.92

185 Queensland University of Technology submission

186 Australian Council of Deans of Education submission

Finding

Stakeholders report that data collected through current teacher registration processes and requirements could be shared to better support workforce planning and teacher mobility.

6.2.4 Improving workforce planning

A consistent and collaborative approach to the collection of workforce data will assist in targeted workforce planning. It will also encourage a more proactive response to future workforce needs by governments, teacher employers, providers and schools. Student intake into initial teacher education programs must reflect workforce requirements.

The Advisory Group considers that providers should be required to pre-register initial teacher education students with their regulatory body on entry to their program. Pre-registration of initial teacher education students would enable the collection of student data, including specialisations, which will contribute to better national workforce planning and enable better anticipation and management of professional experience requirements.

Recommendations

In the area of strengthening workforce planning, the Advisory Group recommends that

35. Higher education providers pre-register all entrants to initial teacher education programs, on a nationally consistent basis.
36. Teacher regulatory authorities collect robust workforce data on a nationally consistent basis, including areas of specialisation, to inform workforce planning.
37. Teacher regulatory authorities share data to contribute to a national workforce dataset and national workforce planning.
38. Higher education providers take into account national workforce needs, in consultation with employers, when making decisions about student intake to better respond to market demand.

7. Achieving real change

The strong reforms recommended in this report aim to drive confidence in the teaching profession by lifting the standard of all initial teacher education programs in Australia.

Achieving these outcomes will require national leadership and collaborative effort. The Australian Government, state and territory governments, non-government education sectors, higher education providers and schools must work together to ensure the reforms make a real difference to classroom teaching practice and ultimately improve student learning.

The teaching profession must embrace the opportunity to fully participate in a reformed, integrated system of initial teacher education. Participation of the profession will be essential in embedding the reforms necessary to deliver high-quality teaching in every Australian school.

7.1 The impetus for a national response

The Advisory Group is convinced that the need to implement change to lift the quality of initial teacher education in Australia is urgent, and that the integration of effort required calls for a national response. While there are examples of reform to initial teacher education within individual jurisdictions, the Australian Government has a vital role to play in bringing providers and school systems together to transform initial teacher education nationally.

The Australian Government, through the Australian Institute for Teaching and School Leadership (AITSL), led the development of the *Australian Professional Standards for Teachers* (Professional Standards) and the *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures* (Accreditation Standards). The challenge now is to make sure this foundation of standards is effectively applied so that it will have a powerful and long-lasting impact. The Advisory Group believes that the Australian Government must provide national leadership to address this challenge.

There are established structures in place to facilitate this collaborative work. National priorities for school education are set and progressed by the Australian Government and the states and territories through the Council of Australian Governments' Education Council. National education bodies, such as AITSL, deliver required national policy outcomes. States and territories and the Catholic and independent sectors focus on policy implementation within their jurisdictions and schools, particularly in their role as teacher employers. States and territories also have mechanisms for change through the regulatory frameworks for teacher registration and program accreditation.

7.2 Working together

The Advisory Group acknowledges that initial teacher education in Australia has previously been the subject of a large number of reviews, the outcomes of which have had limited impact on the policy and practice of developing new teachers. The Advisory Group is determined that the proposals in this report make a real difference to the Australian teaching profession.

In working to provide practical and implementable recommendations, the Advisory Group has identified the actions that must be taken by the Australian Government, those that will need to be progressed with state and territory education ministers, and those that will need to be undertaken with government and non-government education sectors.

The Advisory Group urges all parties to work together to action the proposed recommendations without delay. Standards for the quality of initial teacher education must be set high, programs rigorously assessed and requirements made transparent (Recommendations 1 and 2).

7.2.1 Higher education providers

The Advisory Group recognises the crucial role of higher education providers in implementing the proposed recommendations. Higher education providers are central to improving the quality of initial teacher education nationally, and in turn the quality of teaching in Australian schools. The expertise and experience of those delivering initial teacher education will be necessary to maximise the impact of the proposed reforms on student learning. The Advisory Group acknowledges that providers have demonstrated support for collaborative effort to make sure initial teacher education in Australia is of the highest quality, and believes this is fundamental to achieving genuine reform.

7.2.2 Australian Government

In view of the Australian Government's longstanding and continuing responsibility for funding and quality regulation of higher education and its role as the owner of AITSL, the Advisory Group believes that the Australian Government must act to achieve:

- a national regulator for initial teacher education (Recommendation 4)
- an overhauled national accreditation process (Recommendations 4, 5, 6, 7, 8 and 9)
- national leadership for high standards in initial teacher education, and a national focus on research into teacher education effectiveness (Recommendations 3 and 34)
- rigorous and transparent approaches to the selection of entrants to initial teacher education (Recommendations 10, 11, 12 and 13)
- national guidelines for teachers supervising professional experience (Recommendation 23)
- a national pre-service teacher assessment framework (Recommendation 26)
- a review of the Graduate level of the Professional Standards (Recommendation 29)
- national guidelines for beginning teacher induction (Recommendation 30).

7.2.3 All education ministers

The Advisory Group believes that the Australian Government Minister for Education must work closely with state and territory education ministers to achieve:

- a rigorous and transparent national process for program accreditation that is administered by a national regulator, has a solid focus on evidence of successful graduate outcomes, and operates effectively with teacher registration (Recommendations 4, 5, 6, 7, 8 and 9)
- a national teaching profession that is responsive to workforce needs (Recommendations 36, 37 and 38)
- comprehensive assessment of pre-service teachers and evidence-based teacher registration (Recommendations 27, 33, and 35)
- strengthened program Accreditation Standards requirements, including rigorous and transparent selection, evidence-based program design and delivery, subject specialisation for primary teachers, integrated professional experience, robust assessment of classroom readiness, and appropriately qualified staff delivering initial teacher education (Recommendations 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27 and 28).

7.2.4 Australian Government with all education sectors

The Advisory Group believes that the Australian Government must work with government and non-government education sectors to achieve:

- effective delivery, supervision and assessment of professional experience through partnerships between providers and schools (Recommendations 19, 23 and 28)
- integration of pre-service teachers in the activities and culture of schools (Recommendation 24)
- supported transition to proficiency through effective induction for all beginning teachers (Recommendations 31, 32 and 33).

7.3 Conclusion

There is agreement that Australian students deserve world-class teachers. For this reason, every single teacher must be effectively prepared for the classroom through their initial teacher education, and supported to continually develop throughout their career.

The ambition of the Advisory Group has been to provide strong, implementable options to initiate genuine national reform of initial teacher education. The time for targeted effort is now, with a strong foundation for reform already in place through national standards, and an appetite for change among states and territories, higher education providers and school communities.

These key parties must work together to strengthen all elements of initial teacher education and to create a culture of high expectations and best practice. A transformation of initial teacher education will be achieved through:

1. a strengthened quality assurance process for programs nationally
2. sophisticated and transparent selection for entry to teaching
3. integration of theory and practice through better partnerships between providers and schools
4. robust assessment of classroom readiness and support for beginning teachers
5. improved national workforce capability and research into teacher education effectiveness.

The Advisory Group is convinced that the recommendations in this report, implemented immediately and through strong collaborative effort, are the best way to transform the teaching workforce into a high-quality national profession that delivers effective teaching to every Australian school student.

Appendices

Appendix A: Terms of Reference for the Teacher Education Ministerial Advisory Group

Introduction

The Teacher Education Ministerial Advisory Group will provide advice to the Commonwealth Minister for Education on how teacher education programmes could be improved to better prepare new teachers with the practical skills needed for the classroom.

Purpose

Using an evidence based approach, the Group will identify common components regarded as world's best practice in teacher education with a particular focus on:

1. *Pedagogical approaches*—Ways of teaching and learning, including assessing learning related to specific areas and matched to the capabilities of students
2. *Subject content*—Knowledge and understanding of school subjects in the primary and secondary curriculum, particularly in relation to foreign languages and science, technology, engineering and mathematics (STEM) subjects, and
3. *Professional experience (practicum)*—Improved university and in-school professional experience opportunities for pre-service teachers and better support from experienced mentor teachers.

The Group will consider the *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures* and the *Australian Professional Standards for Teachers*, as potential mechanisms to give effect to its recommendations for improvement to teacher education, as appropriate.

In making its recommendations, the Group will identify priorities for actions to improve teacher education and suitable implementation timeframes.

International benchmarking

An independent consultant will be engaged to undertake evidence-based research and rigorous benchmarking of world's best practice teacher education programmes against Australia's own programmes to support the focus areas of the Group.

Consultation

The Group will undertake public consultations, inviting written public submissions and hosting up to four national meetings with key stakeholders.

Consultations will include meeting with, at a minimum:

- The Australian Institute for Teaching and School Leadership
- Universities Australia and the Australian Council of Deans of Education
- Teacher employers and teacher regulatory bodies
- Key representative bodies of the education sector, and
- Relevant education experts.

Roles and responsibilities

The Department of Education will provide secretariat support to the Group and the Associate Secretary, Early Childhood, Schools and Youth will take an observer role in the Group.

The Group will report to the Minister for Education in mid-2014.

Appendix B: Advisory Group process and consultation

On 19 February 2014 the Minister for Education, The Hon Christopher Pyne MP, announced the establishment of the Teacher Education Ministerial Advisory Group to provide advice on how teacher education programs could be improved to better prepare new teachers with the right mix of academic and practical skills needed for the classroom.

The Advisory Group has identified common components regarded as being world's best practice in teacher education programs, with a particular focus on pedagogical approaches, knowledge of the school subjects to be taught, and teacher professional experience.

On 17 April 2014 the Advisory Group released an issues paper that formed the basis of the public consultation process. The paper gave an overview of current reforms relating to teacher education, and outlined the issues of most interest to the Advisory Group, with the aim of collecting evidence-based, practical responses to the areas for discussion. Additional information on the Issues Paper can be found at Appendix D.

The Advisory Group was led by **Professor Greg Craven**, Vice-Chancellor of the Australian Catholic University and a member of the Board of Directors of Universities Australia.

Other Advisory Group members were:

- **Professor Kim Beswick**, Professor in Mathematics Education, University of Tasmania
- **Mr John Fleming**, Deputy Principal (Junior School Teaching and Learning), Haileybury, Victoria
- **Mr Trevor Fletcher**, Principal, Eastern Fleurieu School, South Australia
- **Ms Michelle Green**, Chief Executive, Independent Schools Victoria
- **Dr Ben Jensen**, Chief Executive Officer, Learning First
- **Professor Eeva Leinonen**, Deputy Vice-Chancellor (Education), University of Wollongong
- **Professor Field Rickards**, Dean, Melbourne Graduate School of Education, University of Melbourne.

Appendix C: Organisations consulted during public consultation

Stakeholder	Date of meeting
ACT Education and Training Directorate	22 May 2014
Association of Heads of Independent Schools of Australia	10 June 2014
Australasian Teacher Regulatory Authorities	22 May 2014
Australian Association of Mathematics Teachers	10 June 2014
Australian College of Educators	30 May 2014
Australian Council of Deans of Education	10 June 2014
Australian Council of State School Organisations	10 June 2014
Australian Curriculum Assessment and Reporting Authority	22 May 2014
Australian Education Union	10 June 2014
Australian Federation of Modern Language Teachers Associations	22 May 2014
Australian Institute for Teaching and School Leadership	30 May 2014
Australian Parents Council	6 June 2014
Australian Primary Principals Association	10 June 2014
Australian Science Teachers Association	30 May 2014
Australian Secondary Principals Association (teleconference)	3 June 2014
Australian Special Education Principals' Association	3 June 2014
Board of Studies Teaching and Educational Standards NSW	22 May 2014
Catholic Secondary Principals Australia	3 June 2014
Catholic School Parents Australia	24 June 2014
Dr Chris Sarra	7 June 2014
Independent Education Union of Australia	10 June 2014
Independent Schools Council of Australia	10 June 2014
Kingston Primary School WA	10 June 2014
More Aboriginal and Torres Strait Islander Teachers Initiative	3 June 2014
National Aboriginal and Torres Strait Islander Principals Association	30 May 2014
National Catholic Education Commission	22 May 2014
NT Department of Education (videoconference)	3 June 2014
QLD Department of Education and Employment	22 May 2014
SA Department for Education and Child Development	3 June 2014
STEM Industry and Education Advisory Group (videoconference)	30 May 2014
Universities Australia	10 June 2014
VIC Department of Education and Early Childhood Development	30 May 2014
WA Department of Education (videoconference)	3 June 2014

Appendix D: Public submissions

Australian Heads of Independent Schools Australia
Asia Education Foundation
Australasian Teacher Regulatory Authorities
Australian Academy of Science
Australian Association for the Teaching of English
Australian Catholic University
Australian College of Educators
Australian Council for Health, Physical Education and Recreation Victorian Branch
Australian Council of Deans of Education
Australian Council of Deans of Information and Communications Technology
Australian Council Of State School Organisations
Australian Council of TESOL Associations
Australian Curriculum, Assessment and Reporting Authority
Australian Dyslexia Association
Australian Education Union
Australian Federation of Modern Language Teachers Associations
Australian Federation of Graduate Women
Australian Government Primary Principals Association
Australian Institute for Teaching and School Leadership
Australian Mathematical Sciences Institute
Australian Parents Council
Australian Primary Principals Association
Australian Science and Mathematics School
Australian Science Teachers Association
Australian Secondary Principals Association
Australian Special Education Principal's Association
Australian Teacher Education Association
Barnes, Amanda
Benowa Teacher Education Centre of Excellence
Board of Studies, Teaching and Educational Standards, Department of Education and Communities, the Catholic Education Commission and the Association of Independent Schools, NSW
Briggs, Freda (et al)
Burrows, Andrew
Bycroft, Chey
Cain, Karen
Catholic Education Office of Western Australia
Catholic Education, Diocese of Parramatta
Catholic School Parents Australia
Charles Darwin University
Children with Disability Australia

Cox Taylor, Jacqueline
Deakin University, Faculty of Arts and Education, School of Education
Deans of Education South Australia
Department of Education, Tasmania
Department of Education, Western Australia
Design and Technology Teachers Association of Australia
Edith Cowan University
Faculty of Education, University of Tasmania
Farley, Karen
Federation University Australia
Firth, Nola
Fischetti, John
Flinders University School of Education
Furtado, Michael
Fyson, Stephen
Geach, Rebecca
Griffith University
Hempenstall, Kerry
Independent Education Union - Queensland and Northern Territory Branch
Independent Education Union of Australia
Independent Schools Council of Australia
Independent Schools Queensland
Inschool Australia Pty Ltd
Institute of Early Childhood, Macquarie University
Institute of Industrial Arts Technology Education
Kingston Primary School - Western Australia
La Trobe University
Languages and Cultures Network for Australian Universities
Lead Teachers Association of South Australia
Learning Difficulties Australia
Lennie, Teresa
Leon de la Barra, Bernardo
Lovat, Terry
Love, Ted
Ma Rhea, Zane
Macquarie University Special Education Centre
Mathematical Association of Victoria
Mirabella, Timothy
Monash College Pty Ltd
Monash University, Faculty of Education
Music Council of Australia

National Association of Australian Teachers of the Deaf
National Catholic Education Commission
National Tertiary Education Union
Northern Territory Department of Education
Northern Territory Teacher Registration Board - Initial Teacher Education Committee
Norton, Stephen
Office of Minister Joy Burch MLA
Office of the Chief Scientist
Parents and Friends Federation of Western Australia Inc.
Piltz, Wendy
Pollard, Betty
Professional Teachers' Council NSW
Queensland College of Teachers
Queensland Department of Education, Training and Employment
Regional Universities Network
Research Team across Victoria, Deakin, Griffith and Monash Universities
Richards, Ayanthi
Ronald McDonald House Charities
Rorrison, Doreen
Ross, Graeme
Royal Melbourne Institute of Technology
Rushwood, Arden
Ryan, Josephine
School of Education, Macquarie University
School of Education, The University of Adelaide
School of Education, The University of Queensland
Singh, Michael
School Music Action Group Victoria
Social Inquiry Network, School of Education, Flinders University
Social Ventures Australia
South Australian Government
Specific Learning Difficulties Association (NSW)
St Stephen's Institute, St Stephen's School
Stark, Rebecca
Stephanie Alexander Kitchen Garden Foundation
Stevens, Robin
Stiles, Phil
Stuart, Julie
Swallow, Gavin
The Australian Association of Mathematics Teachers
The Brotherhood of St Laurence

The Music Trust
The NSW Parents' Council
The Royal Children's Hospital Education Institute
The University of Melbourne, Melbourne Graduate School of Education
The University of Queensland
The Warren Centre for Advanced Engineering
The Wellbeing Web
Tripp, David
Universities Australia
University of New England
University of Notre Dame Australia
University of South Australia
University of South Australia: MATSITI Project
University of the Sunshine Coast
University of Western Sydney
Victoria University
Victorian Association for the Teaching of English
Victorian Catholic Schools Parent Body
Victorian Department of Education and Early Childhood Development
Victorian Principals Association
Wei, Ying
Wellbeing Australia : Student Wellbeing Action Network
Winter, Ben
Wood, Eleanor

Appendix E: Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures

AITSL is funded by the Australian Government



Accreditation of Initial Teacher Education Programs in Australia

Standards and Procedures

April 2011

© 2011 Education Services Australia as the legal entity for the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA).

Education Services Australia, as the legal entity for the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) owns the copyright in this publication. This publication or any part of it may be used freely only for non-profit education purposes provided the source is clearly acknowledged. The publication may not be sold or used for any other commercial purpose.

Other than as permitted above or by the Copyright Act 1968 (Commonwealth), no part of this publication may be reproduced, stored, published, performed, communicated or adapted, regardless of the form or means (electronic, photocopying or otherwise), without the prior written permission of the copyright owner.

Address inquiries regarding copyright to:

MCEECDYA Secretariat, PO Box 202, Carlton South, VIC 3053, Australia.

First published April 2011

Reprinted with corrections May 2011

Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures

ISBN: 978-0-9803323-7-7 (electronic)

The Australian Institute for Teaching and School Leadership was formed to provide national leadership for the Commonwealth, state and territory governments in promoting excellence in the profession of teaching and school leadership with funding provided by the Australian Government.

Contents

Preamble	2
National Graduate Teacher Standards	5
National Program Standards	12
National accreditation process	16
Acknowledgements	21

Ensuring high quality teacher education is a first and critical step in delivering high quality teaching in schools, particularly at a time when the role of teachers is becoming increasingly complex and demanding.¹

1. House of Representatives Standing Committee on Education and Vocational Training. (2007). *Top of the class: Report on the inquiry into teacher education*. The Parliament of the Commonwealth of Australia: Canberra, p.xxi

Preamble

This document reflects the shared commitment of the teaching profession, teacher educators, employers of teachers, schools and the education community more broadly to ensuring that entrants to teaching are of the highest quality and are recognised as such. This means that graduates have the professional knowledge and skills necessary to build highly productive professional practice and that their developing professional expertise is recognised and fostered.

These Standards and Procedures reflect high expectations of initial teacher education. The stakeholders are united in their belief that the teaching profession and the Australian community deserve nothing less. There is an expectation that those entering teaching will be a diverse group of highly literate and numerate individuals with a professional platform from which to develop as high quality teachers.

This document represents an unconditional commitment to high standards of graduates from initial teacher education programs. It also acknowledges that there are multiple pathways to excellence, and the accreditation process provides for flexibility in how both providers and program participants achieve high standards and demonstrate them.

It is the graduate outcomes of teacher education programs that matter and, ultimately, about which judgements of graduate quality must be made. The quality of graduates of teacher education, however, will depend largely upon the abilities of those entering teacher education programs, the quality of the programs provided, the commitment of schools and school systems to deliver quality professional experience placements, and the level and nature of the engagement by the students throughout their teacher education. The Program Standards therefore address entry criteria and conditions, and program structure and content, as well as graduate outcomes. This will provide greater assurance to all stakeholders, including teacher education students themselves, of successful and accomplished graduates.

These Standards and Procedures are a companion to the *Australian Professional Standards for Teachers*² and are designed to ensure that the Graduate career stage of the Standards is met and even exceeded by all those seeking to become teachers.

Principles for national accreditation

These Standards and Procedures for the accreditation of initial teacher education programs and their application are informed by six principles:

1. **Continuous improvement:** The accreditation process contributes to the improvement of the quality of initial teacher education and consequently of teaching and learning in Australia, providing a guarantee of graduate teacher quality and building public confidence in the profession. It will lead to change where performance needs improvement, and challenge effective providers and programs to improve further. The Standards and Procedures itself is regularly reviewed and improved.
2. **Outcomes focus:** The accreditation process sets high standards for graduate outcomes, and focuses on ensuring these are met.
3. **Flexibility, diversity and innovation:** National accreditation celebrates and encourages the capacity of providers to be innovative in delivery of programs to meet the diverse needs of students and the profession. Accordingly, teacher education providers may present an evidence-based case that an element or elements of their programs meet the intent of the Program Standards and that their graduates satisfy the Graduate Teacher Standards.
4. **Partnerships:** National accreditation is built around partnerships involving shared responsibilities and obligations among teacher education providers, schools³, teachers, employers, and teacher regulatory authorities.
5. **Building on existing expertise:** National accreditation adds value to and builds on the strengths of jurisdictional accreditation experience, and the considerable expertise that exists in Australian teacher education. It acknowledges the professional prerogatives of Australian universities.

2. Australian Institute for Teaching and School Leadership (AITSL). 2011. *Australian Professional Standards for Teachers*. Retrieved 21 March 2011, from http://www.aitsl.edu.au/verve/_resources/AITSL_National_Professional_Standards_for_Teachers.pdf

3. In these *Standards and Procedures*, the term 'school' may include, where appropriate, other educational settings where accredited programs of learning occur for school-aged students. Specific requirements for programs preparing teachers for these settings will be developed as required.

6. **Evidence:** The credibility of national accreditation is built on evidence-based practice and contributes to the development of evidence through research about what works in quality teacher education. This evidence in turn informs the development of accreditation, allowing it to focus on those things shown to be related to outcomes.

Objectives of national accreditation

The accreditation of initial teacher education programs is a key element in improving teacher quality. National accreditation has two key objectives:

- improving teacher quality through continuous improvement of initial teacher education, and
- accountability of providers for their delivery of quality teacher education programs based on transparent and rigorous standards and accreditation processes.

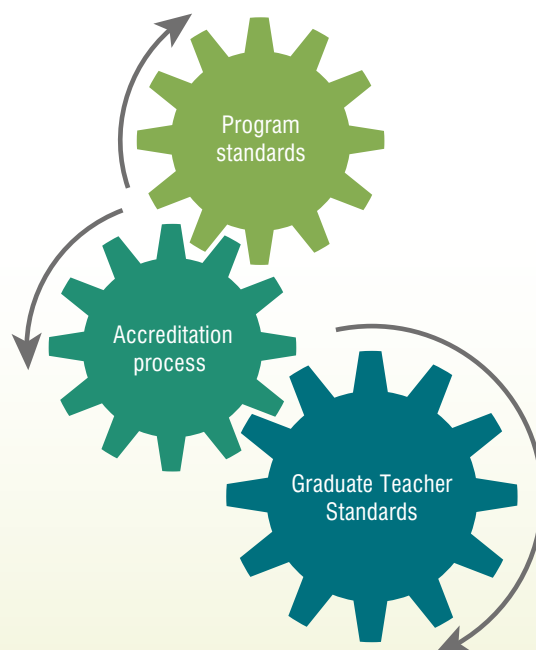
By contributing to teacher quality, national accreditation of initial teacher education programs will help to achieve the national goals for schooling expressed in the *Melbourne Declaration on Educational Goals for Young Australians*⁴ endorsed by Ministers in December 2008.

Elements of national accreditation

The national accreditation process for initial teacher education programs has three integrated elements:

- the Graduate Teacher Standards, which are the Graduate career stage of the *Australian Professional Standards for Teachers*, and make explicit the knowledge, skills and attributes expected of graduates of nationally accredited programs
- the Program Standards, which describe key features expected of high-quality initial teacher education programs: the characteristics of programs that give confidence the Graduate Teacher Standards will be achieved
- the accreditation process, which sets out a nationally consistent process to accredit programs, including the establishment and composition of accreditation panels, assessment of programs by these panels, and reporting accreditation decisions.

This diagram illustrates the interaction of the three elements of the national process.



4. Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA). 2008. *Melbourne Declaration on Educational Goals for Young Australians*. Retrieved 23 February 2011, from: http://www.mceecdya.edu.au/verve/_resources/National_Declaration_on_the_Educational_Goals_for_Young_Australians.pdf

These Standards and Procedures are supported by supplementary materials that elaborate the Program Standards, advise providers engaging with the accreditation process, and support panel members in considering evidence and making judgements about programs and the extent to which they meet the standards.

Relationship to the Australian curriculum

These Standards and Procedures will be implemented during a transitional period as the Australian curriculum is introduced. Until the Australian curriculum is fully implemented, specification of minimum discipline requirements for initial teacher education will be as currently described in the Program Standards, unless a jurisdiction has greater specification. In these cases, the minimum requirement will be the same as is currently required in that jurisdiction. As the Australian curriculum is introduced, jurisdictions will move towards common specifications for the curriculum areas.

It is acknowledged that the Australian curriculum will not specifically cover all of the areas of specialisation for which teachers are prepared. In these areas, providers will demonstrate that programs contain studies at equivalent depth to those specified for discipline and discipline-specific curriculum and pedagogical studies in the Program Standards.

National Graduate Teacher Standards

The Graduate Teacher Standards make explicit the professional expectations of those graduating from initial teacher education programs. They describe the professional knowledge, professional practice and professional engagement at the first of the four career stages defined in the *Australian Professional Standards for Teachers*. Because they define what graduate teachers should know and be able to do, the Graduate Teacher Standards are the key to the accreditation of programs.

For programs to be accredited, providers need to show how their graduates meet the Graduate Teacher Standards.

The following is an extract from the *Australian Professional Standards for Teachers* that describes the Graduate Teacher Standards. The Standards have been developed, revised and validated through nationwide consultation and a national validation process involving several thousand teachers across the country.

Graduate teachers

Graduate teachers have completed a qualification that meets the requirements of a nationally accredited program of initial teacher education. The award of this qualification means that they have met the Graduate Teacher Standards.

On successful completion of their initial teacher education, graduate teachers possess the requisite knowledge and skills to plan for and manage learning programs for students. They demonstrate knowledge and understanding of the implications for learning of students' physical, cultural, social, linguistic and intellectual characteristics. They understand principles of inclusion and strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities.

Graduate teachers have an understanding of their subject/s, curriculum content and teaching strategies. They are able to design lessons that meet the requirements of curriculum, assessment and reporting. They demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice. They know how to select and apply timely and appropriate types of feedback to improve students' learning.

Graduate teachers demonstrate knowledge of practical strategies for creating rapport with students and managing student behaviour. They know how to support students' well being and safety working within school and system curriculum and legislative requirements.

They understand the importance of working ethically, collaborating with colleagues, external professional and community representatives, and contributing to the life of the school. Teachers understand strategies for working effectively, sensitively and confidentially with parents/carers and recognise their role in their children's education.

Professional Knowledge

Standard 1 — Know students and how they learn	
Focus area	Graduate
1.1 Physical, social and intellectual development and characteristics of students	Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning.
1.2 Understand how students learn	Demonstrate knowledge and understanding of research into how students learn and the implications for teaching.
1.3 Students with diverse linguistic, cultural, religious and socioeconomic backgrounds	Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds.
1.4 Strategies for teaching Aboriginal and Torres Strait Islander students	Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds.
1.5 Differentiate teaching to meet the specific learning needs of students across the full range of abilities	Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities.
1.6 Strategies to support full participation of students with disability	Demonstrate broad knowledge and understanding of legislative requirements and teaching strategies that support participation and learning of students with disability.

Standard 2 — Know the content and how to teach it	
Focus area	Graduate
2.1 Content and teaching strategies of the teaching area	Demonstrate knowledge and understanding of the concepts, substance and structure of the content and teaching strategies of the teaching area.
2.2 Content selection and organisation	Organise content into an effective learning and teaching sequence.
2.3 Curriculum, assessment and reporting	Use curriculum, assessment and reporting knowledge to design learning sequences and lesson plans.
2.4 Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians	Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages.
2.5 Literacy and numeracy strategies	Know and understand literacy and numeracy teaching strategies and their application in teaching areas.
2.6 Information and Communication Technology (ICT)	Implement teaching strategies for using ICT to expand curriculum learning opportunities for students.

Professional Practice

Standard 3 — Plan for and implement effective teaching and learning	
Focus area	Graduate
3.1 Establish challenging learning goals	Set learning goals that provide achievable challenges for students of varying abilities and characteristics.
3.2 Plan, structure and sequence learning programs	Plan lesson sequences using knowledge of student learning, content and effective teaching strategies.
3.3 Use teaching strategies	Include a range of teaching strategies.
3.4 Select and use resources	Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning.
3.5 Use effective classroom communication	Demonstrate a range of verbal and non-verbal communication strategies to support student engagement.
3.6 Evaluate and improve teaching programs	Demonstrate broad knowledge of strategies that can be used to evaluate teaching programs to improve student learning.
3.7 Engage parents/carers in the educative process	Describe a broad range of strategies for involving parents/carers in the educative process.

Standard 4 — Create and maintain supportive and safe learning environments	
Focus area	Graduate
4.1 Support student participation	Identify strategies to support inclusive student participation and engagement in classroom activities.
4.2 Manage classroom activities	Demonstrate the capacity to organise classroom activities and provide clear directions.
4.3 Manage challenging behaviour	Demonstrate knowledge of practical approaches to manage challenging behaviour.
4.4 Maintain student safety	Describe strategies that support students' well-being and safety working within school and/or system, curriculum and legislative requirements.
4.5 Use ICT safely, responsibly and ethically	Demonstrate an understanding of the relevant issues and the strategies available to support the safe, responsible and ethical use of ICT in learning and teaching.

Standard 5 — Assess, provide feedback and report on student learning	
Focus area	Graduate
5.1 Assess student learning	Demonstrate understanding of assessment strategies, including informal and formal, diagnostic, formative and summative approaches to assess student learning.
5.2 Provide feedback to students on their learning	Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning.
5.3 Make consistent and comparable judgements	Demonstrate understanding of assessment moderation and its application to support consistent and comparable judgements of student learning.
5.4 Interpret student data	Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice.
5.5 Report on student achievement	Demonstrate understanding of a range of strategies for reporting to students and parents/carers and the purpose of keeping accurate and reliable records of student achievement.

Professional Engagement

Standard 6 — Engage in professional learning	
Focus area	Graduate
6.1 Identify and plan professional learning needs	Demonstrate an understanding of the role of the Australian Professional Standards for Teachers in identifying professional learning needs.
6.2 Engage in professional learning and improve practice	Understand the relevant and appropriate sources of professional learning for teachers.
6.3 Engage with colleagues and improve practice	Seek and apply constructive feedback from supervisors and teachers to improve teaching practices.
6.4 Apply professional learning and improve student learning	Demonstrate an understanding of the rationale for continued professional learning and the implications for improved student learning.

Standard 7 — Engage professionally with colleagues, parents/carers and the community

Focus area	Graduate
7.1 Meet professional ethics and responsibilities	Understand and apply the key principles described in codes of ethics and conduct for the teaching profession.
7.2 Comply with legislative, administrative and organisational requirements	Understand the relevant legislative, administrative and organisational policies and processes required for teachers according to school stage.
7.3 Engage with the parents/carers	Understand strategies for working effectively, sensitively and confidentially with parents/carers.
7.4 Engage with professional teaching networks and broader communities	Understand the role of external professionals and community representatives in broadening teachers' professional knowledge and practice.

National program standards

This section sets out the Program Standards that an initial teacher education program will meet to be nationally accredited.

Standard 1: Program outcomes

- 1.1 At the time of initial accreditation, providers must show that graduates of their programs will meet the Graduate career stage of the *Australian Professional Standards for Teachers* and how this will be demonstrated.
- 1.2 At the time of re-accreditation, providers must demonstrate that graduates of their programs meet the Graduate career stage of the *Australian Professional Standards for Teachers*.
- 1.3 Programs meet the requirements of the Australian Qualifications Framework (AQF) so that, on satisfactory completion, the graduate has a four-year or longer full-time equivalent higher education qualification structured as:
 - a three-year undergraduate degree providing the required discipline knowledge, plus a two-year graduate entry professional qualification⁵, or
 - an integrated qualification of at least four years comprising discipline studies and professional studies, or
 - combined degrees of at least four years covering discipline and professional studies, or
 - other combinations of qualifications identified by the provider and approved by the teacher regulatory authority⁶ ('the Authority') in consultation with AITSL to be equivalent to the above, and that enable alternative or flexible pathways into the teaching profession⁷.

Standard 2: Program development

- 2.1 Programs take account of:
 - contemporary school and system needs
 - current professional expert knowledge
 - authoritative educational research findings, and
 - community expectations.

This occurs through consultation with employing authorities, professional teacher bodies and/or the direct involvement of practising teachers, educational researchers and relevant cultural and community experts (e.g. local Aboriginal & Torres Strait Islander groups, parents' organisations).

- 2.2 Programs at self-accrediting higher education institutions have been assessed as meeting internal accreditation processes such that there is coherence and rigour in the intended program outcomes, approaches to teaching and learning, and related student assessment.
- 2.3 Programs of non self-accrediting institutions meet both the relevant accreditation requirements for such institutions and the requirements for national accreditation of initial teacher education programs.

Wherever practicable, the two accreditation processes will be undertaken concurrently, ensuring there is coherence and rigour in the intended program outcomes, approaches to teaching and learning and related student assessment, as well as economy of effort.

Standard 3: Program entrants

- 3.1 All entrants to initial teacher education will successfully demonstrate their capacity to engage effectively with a rigorous higher education program and to carry out the intellectual demands of teaching itself. To achieve this, it is expected that applicants' levels of personal literacy and numeracy should be broadly equivalent to those of the top 30 per cent of the population.
- 3.2 Providers who select students who do not meet the requirements in 3.1 above must establish satisfactory additional arrangements to ensure that all students are supported to achieve the required standard before graduation.
- 3.3 Graduate entry initial teacher education programs have clear selection criteria and equitable entry procedures that require students to have achieved a discipline-specific qualification, relevant to the Australian curriculum or other recognised areas of schooling provision.

5. In this document, references to the duration of academic programs or elements of them should be read in terms of 'equivalent full-time student load' (EFTSL). This defines the amount of study required for completion rather than the calendar duration.

6. While in most jurisdictions the accreditation functions will be undertaken by teacher regulatory authorities, jurisdictions may choose to make other arrangements, including cooperative arrangements with other regulatory authorities. In this document, the teacher regulatory authority or other body performing this function in a jurisdiction is referred to as 'the Authority'.

7. The Authority will make an initial determination about the eligibility of a program for accreditation, based on Program Standard 1.3. Where a program is "(an)other combination of qualifications" as provided for in the standard, the Authority will report its determination to AITSL, who will confer with all of the teacher regulatory authorities and either endorse or recommend reconsideration of the determination before a final decision is reached by the Authority.

For secondary teaching this is at least a *major* study⁸ in one teaching area and preferably a second teaching area comprising at least a *minor* study⁹.

For primary teaching this is at least one year of full-time equivalent study relevant to one or more learning areas of the primary school curriculum.

- 3.4 Students admitted to programs on the basis of an International English Language Testing System (IELTS) assessment, or an equivalent English language proficiency assessment, have attained an overall IELTS (or equivalent) score of 7.5 (with no score below 7 in any of the four skills areas, and a score of no less than 8 in speaking and listening), either on entry to or on graduation from the program.
- 3.5 Recognition of prior learning or credit transfer arrangements are determined by providers in accordance with the *AQF National Principles and Operational Guidelines for Recognition of Prior Learning and Good Practice Principles for Credit Transfer and Articulation from Vocational Education and Training to Higher Education*.

Standard 4: Program structure and content

- 4.1 Program structures must be sequenced coherently to reflect effective connections between theory and practice.
- 4.2 Professional studies in education include discipline-specific curriculum and pedagogical studies, general education studies and professional experience. The professional studies in education will comprise at least two years of full-time equivalent study.¹⁰
- 4.3 Discipline studies will normally be completed either in a separate discipline degree completed prior to a graduate entry initial teacher education program, or as part of an integrated undergraduate teaching degree or combined teaching/discipline degree program.

4.4 Primary programs

Teacher education programs that prepare primary teachers must include study in each of the learning areas of the primary school curriculum sufficient to equip teachers to teach across the years of primary schooling.

In undergraduate primary programs, at least one half of the program (i.e. normally two years of full-time equivalent study) must be dedicated to the study of the discipline of each primary learning area and discipline-specific curriculum and pedagogical studies. This must include at least one-quarter of a year of full-time equivalent study of discipline and discipline-specific curriculum and pedagogical studies in each of English/literacy, mathematics/numeracy, and at least one-eighth of a year of full-time equivalent study of discipline-specific curriculum and pedagogical studies in science.

The remainder of the program may be structured to include extension or specialist studies in priority areas or related curriculum areas.

Graduate entry primary programs must comprise at least two years of full-time equivalent professional studies in education.

These programs must include at least one year of full-time equivalent study of discipline-specific curriculum and pedagogical studies across the learning areas of the primary school curriculum. Programs must include at least one-quarter of a year of full-time equivalent study of discipline-specific curriculum and pedagogical studies in each of English/literacy and mathematics/numeracy, and at least one-eighth of a year of full-time equivalent study of discipline-specific curriculum and pedagogical studies in science.

These programs may include up to one-quarter of a year of full-time equivalent study of relevant discipline studies as elective units which could be undertaken by applicants who do not fully meet prerequisite discipline study requirements.

8. Study undertaken for a major study will be equivalent to a total of three-quarters of a year of successful full-time higher education study, usually comprising sequential discipline study taken over three years. In most programs, this equates to six units, with no more than two at first-year level and no fewer than two units at third-year level.

9. Study undertaken for a minor study will be equivalent to a total of half a year of successful full-time higher education study, usually comprising sequential discipline study taken over two years. In most programs, this equates to four units, with no more than two at first-year level.

10. These standards refer to the amount of study to be undertaken in particular areas in terms of years of full-time equivalent study. This is compatible with the measurement of student load in terms of equivalent full-time student load (EFTSL). In a traditional structure of eight units per year, one unit would be equivalent to one-eighth of a year of full-time equivalent study.

4.5 Secondary programs

Undergraduate secondary programs must provide a sound depth and breadth of knowledge appropriate for the teaching area/s the graduate intends to teach.

These programs should provide at least a *major* study¹¹ in one teaching area and preferably a second teaching area comprising at least a *minor* study¹².

In addition, these programs must include a minimum of one-quarter of a year of full-time equivalent study of discipline-specific curriculum and pedagogical studies for each teaching area the graduate intends to teach. Discipline-specific curriculum and pedagogical studies will prepare graduates to teach across the years of secondary schooling.

Graduate entry secondary programs must comprise at least two years of full-time equivalent professional studies in education.

Programs must include a minimum of one-quarter of a year of full-time equivalent study of discipline-specific curriculum and pedagogical studies for each teaching area that the graduate intends to teach. The discipline-specific curriculum and pedagogical studies should prepare graduates to teach across the years of secondary schooling.

These programs may include up to one-quarter of a year of full-time equivalent study of relevant discipline studies as elective units which could be undertaken by applicants who do not fully meet prerequisite discipline study requirements.

4.6 Specialist programs

Where initial teacher education programs include specialist area studies (e.g. primary physical education, secondary special education, secondary teacher librarianship, etc.), these studies must comprise one year of full-time equivalent study relevant to that specialist area.

4.7 Non-traditional and other settings

Some teacher education programs prepare graduates for teaching across traditional boundaries.

Programs that prepare graduates to teach in both early childhood settings and primary schools are expected to prepare graduates for teaching the curriculum in both contexts.

Programs that prepare graduates for middle school teaching may have a stronger emphasis on teaching particular year levels (e.g. Years 5 to 9) but must fully address the requirements for primary teaching and for secondary teaching in at least one *major* study or two *minor* studies in secondary teaching areas.

Programs that prepare graduates for teaching across P/F/R/K-Year 12 must address the requirements for both primary and secondary teaching.

Programs that prepare graduates for teaching in other specialised teaching roles in schools and other educational settings must address the specific content and pedagogy of the specialisation¹³.

Standard 5: School partnerships

- 5.1 Providers have established enduring school partnerships to deliver their programs, particularly the professional experience component.
- 5.2 The professional experience component of each program must include no fewer than 80 days of well-structured, supervised and assessed teaching practice in schools in undergraduate and double-degree teacher education programs and no fewer than 60 days in graduate entry programs.
- 5.3 Providers describe in detail the elements of the relationship between the provider and the schools, the nature and length of professional experience placements, the components of the placement including the planned experiences and related assessment criteria and methods, and the supervisory and professional support arrangements.

11. Study undertaken for a major study will be equivalent to a total of three-quarters of a year of successful full-time higher education study, usually comprising sequential discipline study taken over three years. In most programs, this equates to six units, with no more than two at first-year level and no fewer than two units at third-year level.

12. Study undertaken for a minor study will be equivalent to a total of half a year of successful full-time higher education study, usually comprising sequential discipline study taken over two years. In most programs, this equates to four units, with no more than two at first-year level.

13. Specific requirements will be developed for programs preparing teachers for settings other than traditional schools where required.

5.4 Providers and their school partners ensure the professional experience component of their program provides their program's students with professional experience that enables:

- working with learners in a variety of school year levels
- appreciation of the diversity of students and communities which schools serve (e.g. rural and metropolitan settings, culturally and linguistically diverse communities, Indigenous communities, etc.).

5.5 Providers and their school partners ensure that teachers supervising professional experience (in particular the supervised teaching practice) are suitably qualified and registered. They should have expertise and be supported in coaching and mentoring, and in making judgements about whether students have achieved the Graduate Teacher Standards.

5.6 Providers require that the supervised teaching practice:

- mandates at least a satisfactory formal assessment of the program's students against the professional practice elements of the Graduate Teacher Standards as a requirement for graduating from the program
- is undertaken mostly in a recognised Australian school setting over a substantial and sustained period that is relevant to an authentic classroom environment, and
- includes a designated role for supervising teachers in the assessment of the program's students.

5.7 School partnership arrangements provide for the timely identification of program students at risk of not satisfactorily completing the formal teaching practice, and of ensuring appropriate support for improvement or program counselling.

Standard 6: Program delivery and resourcing

- 6.1 Programs must use effective teaching and assessment strategies (linked to intended learning outcomes) and resources, including embedded information and communication technologies.
- 6.2 Programs are delivered by appropriately qualified staff, consistent with the staffing requirements in the relevant *National Protocols for Higher Education Approval Processes*, including an appropriate proportion who also have contemporary school teaching experience.
- 6.3 Providers ensure that programs use contemporary facilities and resources, including information and communication technologies, which students can expect to be available in schools.
- 6.4 Providers ensure that their facilities conform to the general expectation for a contemporary higher education learning environment appropriate to the mode of delivery, including such matters as access to:
- education-related library resources
 - information and communication technologies.

Standard 7: Program information and evaluation

- 7.1 Providers use a range of data, such as student assessment information, destination surveys, employer and other stakeholder feedback to drive program improvement and periodic formal evaluation.
- 7.2 Providers report annually to the Authority outlining challenges encountered or any changes in programs.
- 7.3 Providers supply data as required to support local and national teacher workforce supply reporting, to support program and provider benchmarking, and to build a cumulative database of evidence relating to the quality of teacher education in Australia. Data collected is held in a centrally managed database and, under agreed protocols, will be available to all jurisdictions and teacher education providers for research, evaluation and program improvement.

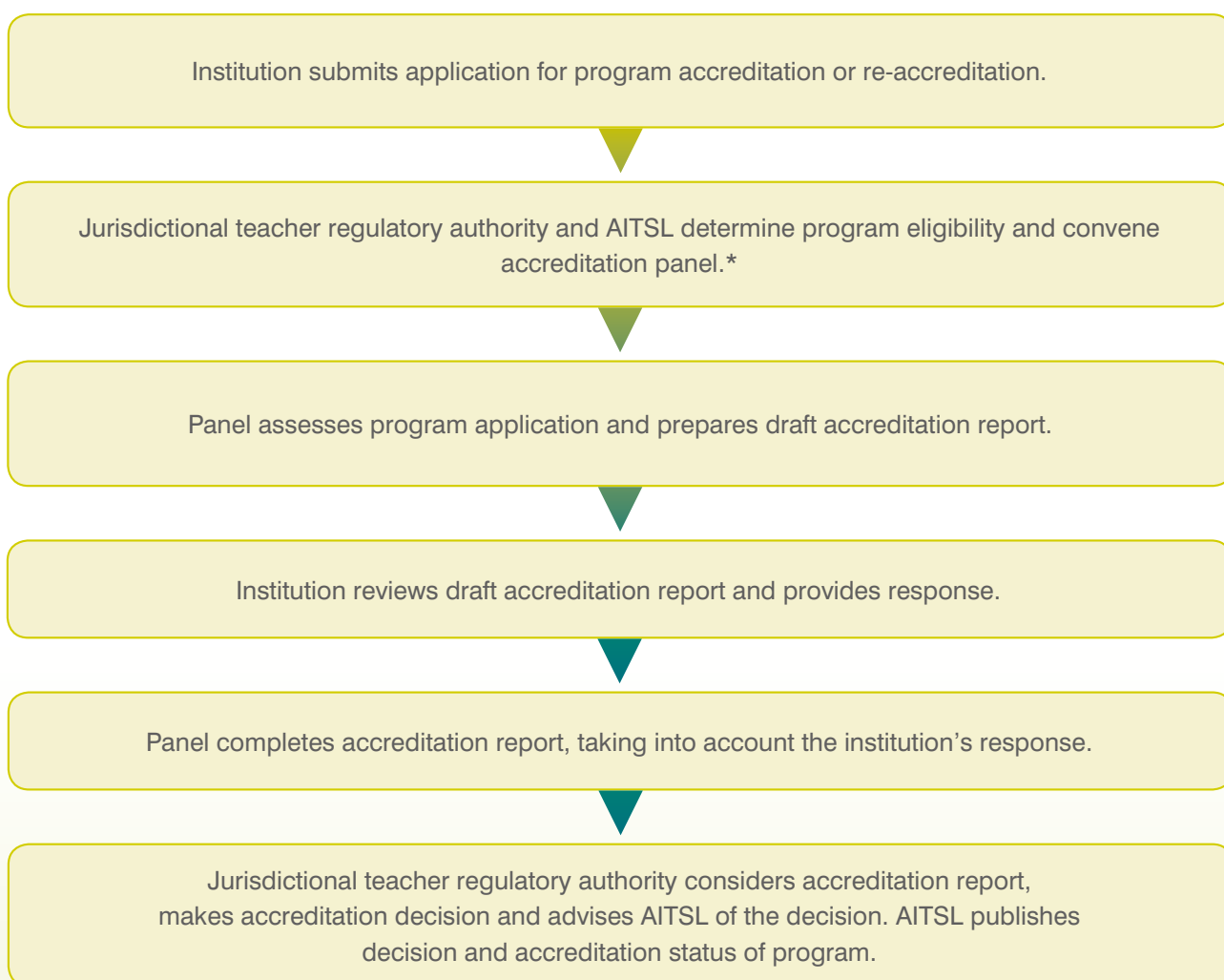
National accreditation process

This section outlines the national accreditation process, in particular:

- the key stages in the national accreditation process
- mechanisms and processes to ensure national consistency and quality of judgement
- a summary of the roles and responsibilities of the agencies involved in the national accreditation process.

Accreditation process – key stages:

The key stages in the accreditation process are:



These stages are explained further below. The supplementary materials developed to enhance nationally consistent accreditation will provide further elaboration.

* The Authority will make an initial determination about the eligibility of a program for accreditation, based on Program Standard 1.3. Where a program is "(an)other combination of qualifications" as provided for in the standard, the Authority will report its determination to AITSL, who will confer with all of the teacher regulatory authorities and either endorse or recommend reconsideration of the determination before a final decision is reached by the Authority.

Application for accreditation or re-accreditation

All institutions seeking to prepare teachers for registration and subsequent employment in Australian school settings are responsible for submitting their programs to the Authority for formal national accreditation or re-accreditation at least every five years.

Where practicable, all programs of a provider that are of the same type (e.g. programs preparing teachers for Australian secondary school settings) should be accredited or re-accredited concurrently. Where providers have a small number of programs, it may be preferable to undertake the accreditation for all programs concurrently.

Providers will generally submit applications for accreditation of new programs to the Authority no later than eight months before the planned delivery of the program, or at least eight months before the expiry of existing accreditation.

Applications for accreditation or re-accreditation are submitted to the Authority in the agreed format. The Authority will liaise with the provider to ensure that the application includes all required documentation and will formally advise AITSL that an application has been received.

Documentation includes:

- course outlines as approved in institutional course accreditation processes, whether internal or external
- further information as required that demonstrates how the program/s meets the Program Standards and how graduates will be assessed as achieving the Graduate Teacher Standards.

Applications for re-accreditation must also include evidence that graduates of the program have achieved the Graduate career stage of the *Australian Professional Standards for Teachers*.

The Authority will make an initial determination about the eligibility of a program for accreditation, based on Program Standard 1.3. Where a program is “(an) other combination of qualifications” as provided for in the standard, the Authority will report its determination to AITSL, which will confer with all teacher regulatory authorities and either endorse or recommend reconsideration of the determination before a final decision is reached by the Authority.

Accreditation of programs delivered across jurisdictions

If a provider delivers or intends to deliver an initial teacher education program across jurisdictions, the application for accreditation will be lodged with the Authority in the jurisdiction under whose legislation the institution is formally established or governed.

That Authority will then take lead responsibility for the accreditation process. AITSL will ensure that membership of the accreditation panel is representative of all jurisdictions where the program is to be delivered.

Accreditation panels

Jurisdictional teacher regulatory authorities nominate individuals representing a range of experience and expertise (e.g. registered teachers and school principals, teacher educators, community members, specialist personnel, teacher employers) to a national pool of accreditation panel members. Each of them will undertake a national training program before being appointed to an accreditation panel.

Upon receipt of a complete application for accreditation, the Authority selects local individuals from the national pool of panel members to comprise the accreditation panel for the submitted program/s. It is the Authority's responsibility to ensure that panel members are drawn from the trained national pool and that the required experience and expertise are covered across the selected panel members. Panels may co-opt people with specific expertise to provide advice where required.

AITSL will nominate to the accreditation panel at least one national pool member from a different state or territory. The nomination will be discussed with the Authority before being finalised.

Accreditation panels will generally comprise between four and six members, ensuring at least the following experience and expertise is represented:

- currently registered teacher
- teacher educator
- employer of teachers
- other community or specialist personnel as relevant.

The Authority will nominate the chair of the panel, who will be a teacher educator of standing or a panel member with relevant experience.

Each accreditation panel will be supported by an officer from the Authority who has undertaken national panel training and who will be the executive officer for the accreditation panel.

Accreditation panel assessment

Once the Authority finalises membership of an accreditation panel, each panel member will be provided with all documentation and will review all the provided materials. The accreditation panel will convene to consult and assess the program against the national Program Standards and the Graduate Teacher Standards.

In the assessment of the submitted program/s, the accreditation panel will be supported by evidence guides and other supplementary materials developed under AITSL's auspices. Consideration by the panel may include iterative work involving, for example, the provision of further information and amendments to a program.

For initial national accreditation, the panel may undertake a site visit if necessary, at the discretion of the Authority. Generally, for re-accreditation of programs, the panel will undertake a site visit to inform its assessment and to clarify any questions or issues it may have.

Having made its assessment, the panel will draft an accreditation report for presentation to the provider.

Institution response

The draft accreditation report will be made available to the provider for consideration. The provider will respond to the draft report and submit any requested revised documentation as appropriate.

Final accreditation report

The panel will formally consider and assess feedback from the provider and any revised materials before finalising its accreditation report. Further consultation with the provider may be undertaken before this report is finalised and submitted to the Authority.

In submitting its final accreditation report, a panel may recommend that accreditation or re-accreditation be granted subject to particular conditions and specify timeframes under which such conditions should be met.

Teacher regulatory authority accreditation decision

The Authority will make the decision to accredit or re-accredit the submitted program/s based on its accreditation panel report. The Authority will then formally advise the provider in writing of the decision and comply with any relevant legislation. The Authority will concurrently advise AITSL in writing of its decision and AITSL will update the national database accordingly.

In general, programs will be accredited or re-accredited for a period of up to five years.

Providers will seek approval from the Authority for proposed significant changes to an accredited program before making the proposed changes.

The Authority will assess these program changes. Where changes are considered to substantially affect an accredited program, the Authority will convene an accreditation panel to review the changes and make a recommendation as to whether it is necessary for the program to be submitted for re-accreditation.

Appeals

Where an application for accreditation or re-accreditation of a program is unsuccessful, the provider may apply for a review of the decision or appeal against it.

Providers applying for review or appealing against a decision not to accredit an initial teacher education program will do so in accordance with the legislative, policy and administrative requirements of the relevant jurisdictional teacher regulatory authority.

The Authority will immediately advise AITSL when it becomes aware of an appeal or request for review.

Accreditation process – quality assurance and continuous improvement

AITSL will develop and implement processes and mechanisms to assure the quality and consistency of accreditation processes and judgements, in partnership with the jurisdictional teacher regulatory authorities, teacher educators and other stakeholders.

AITSL will coordinate and collate authoritative research on the accreditation and quality assurance of initial teacher education, and manage the national aggregation of program accreditation data. In addition, AITSL will seek to actively participate in international benchmarking studies on initial teacher education and will monitor and evaluate the training and operation of panels to continuously improve the national accreditation process.

AITSL will report annually to MCEECDYA on the operation of the national accreditation of initial teacher education programs. AITSL will undertake periodic review of the national standards and accreditation processes at least every four years, ensuring that relevant research and outcomes of international benchmarking studies are incorporated.

National advisory committee

To help it fulfil its obligations, the AITSL Board of Directors will establish a national advisory committee to advise the Board in its role of overseeing the implementation, maintenance and further development of national accreditation. Matters on which the committee will advise are:

- receiving and publishing accreditation reports and data
- receiving and reviewing reports and summaries on the accreditation process from regulatory authorities
- overseeing national responsibilities such as panel training
- other matters relating to national accreditation requiring the attention of the AITSL Board of Directors.

The committee will include experts from teacher regulatory authorities, employers of teachers, teacher educators and teacher unions.

National accreditation process

Table 1: Broad roles and responsibilities		
Item	AITSL	Jurisdictional teacher regulatory authority
National standards and accreditation process	Establish, review and maintain the <i>Australian Professional Standards for Teachers</i> , the national Program Standards, the national accreditation process, and supplementary materials (evidence guides and advice to panels).	Advise and collaborate on establishment, review and maintenance of national accreditation.
National training of panel members and officers	Provide nationally consistent training to panel members and to jurisdictional officers providing support to accreditation panels.	Nominate panel members to AITSL for national training. Nominate jurisdictional officers to AITSL for national training.
National accreditation timetable	Establish and maintain a timetable for national accreditation and re-accreditation of programs over time.	Negotiate with providers to ensure that, where possible, programs are accredited or re-accredited concurrently.
National accreditation panels	Provide interstate panel members.	Convene accreditation panels, including the panel member nominated by AITSL from another jurisdiction. Provide support to accreditation panels. Make accreditation decisions according to legislation and based on recommendations of accreditation panels. Advise AITSL of accreditation decisions.
Appeals	Participate in jurisdiction based appeals processes as required.	Run or participate in appeals processes, depending on jurisdictional requirements. Where an appeal is upheld, convene a new accreditation panel to undertake the accreditation process.
National database	Maintain a national database of accredited programs. Include in this database other information relating to programs as required.	Advise AITSL of accreditation decisions. Provide information to AITSL about programs and providers as required.
Quality assurance	Nominate interstate panel members. Review national accreditation and implement improvements at least once every four years.	Implement the national Program Standards and the national accreditation process. Participate in quality assurance processes to support national consistency.
Reporting	Report annually to MCEECDYA on the implementation of national accreditation. Establish links with relevant bodies for provision of data and information relating to the implementation of national accreditation.	Report to AITSL on implementation of national accreditation.

Acknowledgements

Endorsed by the Australian Education Ministers:

Mr Andrew Barr MLA

Minister for Education and Training
(Australian Capital Territory)

The Hon. Peter Garrett AM MP

Minister for School Education, Early Childhood and Youth (Australian Government)

The Hon. Adrian Piccoli MP

Minister for Education
(New South Wales)

The Hon. Dr Christopher Burns MLA

Minister for Education and Training
(Northern Territory)

The Hon. Cameron Dick MP

Minister for Education and Industrial Relations
(Queensland)

The Hon. Jay Weatherill MP

Minister for Education
Minister for Early Childhood Development
(South Australia)

The Hon. Lin Thorp MLC

Minister for Education and Skills
Minister for Children
(Tasmania)

The Hon. Peter Hall MLC

Minister for Higher Education and Skills
Minister responsible for the Teaching Profession
(Victoria)

The Hon. Martin Dixon MP

Minister for Education
(Victoria)
Chair, Ministerial Council for Education,
Early Childhood Development and Youth Affairs

The Hon. Dr Elizabeth Constable MLA

Minister for Education
(Western Australia)

Special Thanks:

Australian Government – Department of Education,
Employment and Workplace Relations (DEEWR)

National Standards Subgroup – Australian
Education, Early Childhood Development and Youth
Affairs Senior Officials Committee (AEEYSOC)

Australian Council of Deans of Education (ACDE)

New South Wales Institute of Teachers

Victorian Institute of Teaching

Queensland College of Teachers

Teachers Registration Board of South Australia

Western Australian College of Teaching

Teachers Registration Board of Tasmania

ACT Teacher Quality Institute

Teacher Registration Board of the Northern Territory

AITSL National Accreditation of Initial Teacher
Education Working Group

Patrick Lee (Chair)

Anthony Mackay

Prof Bill Loudon

Margaret Banks

Gary Barnes

Margery Evans

Prof Robert Gilbert

Lorraine Hodgson

John Ryan

Prof Sue Willis



aitsl.edu.au

Further information

Telephone: +61 3 9944 1200
Melbourne | Brisbane | Canberra

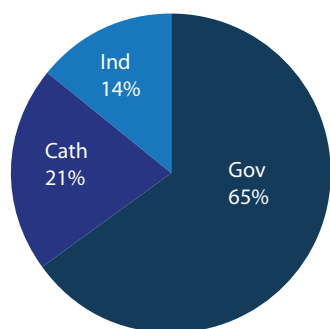
AITSL is funded by the Australian Government

ISBN 978-0-9871650-7-7

Appendix F: Australia's school students

Australia's schooling sector spans three systems—government, Catholic and independent—and educates a diverse student population in schools across metropolitan, regional and remote locations. The compulsory age of schooling is between 5 and 17 years of age. Schools are traditionally separated into primary and secondary settings.

Table 1: School student enrolments in Australia, by state and sector, 2013



In 2013, there were 3,633,439 full-time equivalent enrolments in Australian schools. Of these, 65% were in government schools.

	Government		Catholic		Independent		Total	S/T share
NSW	755,346	65%	251,370	22%	147,444	13%	1,154,159	32%
Vic	554,782	63%	201,804	23%	126,111	14%	882,696	24%
Qld	509,671	67%	141,048	18%	113,585	15%	764,304	21%
SA	167,614	64%	48,651	19%	46,046	18%	262,311	7%
WA	253,953	66%	68,551	18%	63,240	16%	385,744	11%
Tas	56,491	70%	14,778	18%	9,138	11%	80,406	2%
NT	29,441	73%	4,813	12%	6,232	15%	40,486	1%
ACT	36,383	57%	17,795	28%	9,155	14%	63,333	2%
Total	2,363,681	65%	748,808	21%	520,949	14%	3,633,439	100%

Source: Australian Bureau of Statistics (2013) Schools Australia 2013, catalogue no. 4221.0, Table 43(a).

Note: Percentages may not add to 100 per cent due to rounding.

The schooling system educates students from a variety of geographical, socio-economic and cultural backgrounds with a diverse range of learning needs. As an indicator of the diversity in the Australian school student population:

- In 2012, there were 183,610 students with disability¹⁸⁷ in Australian schools, with 6.1 per cent of all students in the government sector and 3.4 per cent in the non-government sector identifying as students with disability.¹⁸⁸
- In 2013, there were 183,306 Aboriginal and Torres Strait Islander full-time equivalent enrolments in Australian schools. This represents 5 per cent of all full-time equivalent enrolments in Australia. Eighty-four per cent of Aboriginal and Torres Strait Islander students were enrolled in government schools, 10 per cent in Catholic schools and five per cent in independent schools.¹⁸⁹
- In 2013, 24 per cent of students attended schools in provincial¹⁹⁰ areas and an additional two per cent in remote or very remote schools. This varied considerably across jurisdictions, with more than half of students in Tasmania and the Northern Territory attending provincial schools, and just one-fifth of students in Western Australia.¹⁹¹

187 To be an eligible student with disability, the student must satisfy the criteria for enrolment in special education services/programs provided by the government of the state or territory in which the student resides.

188 Productivity Commission (2014), *Report on Government Services*, Vol. B, Chapter 4 'School Education Attachment Tables', p.4.12

189 Australian Bureau of Statistics (2013), *Schools Australia 2013*, cat. no. 4221.0

190 The ABS classifies the location of schools as 'metropolitan', 'provincial', 'remote' and 'very remote' as determined by the Standing Council for Education. Provincial areas are those with a population between 25,000 and 99,000.

191 Australian Bureau of Statistics (2013), *Schools Australia 2013*, cat. no. 4221.0

Appendix G: Initial teacher education students

The table below shows that the total number of commencing¹⁹² students in initial teacher education programs in 2013 was 29,595, while the total number of students enrolled in all initial teacher education programs was 79,623. This was a decline of 2.8 per cent on total commencements from 2012 but an increase of 1.8 per cent in terms of total enrolments. The decline in total commencements represented a decline in undergraduate commencements, with postgraduate commencements actually increasing by 12.9 per cent.¹⁹³

Table 2: Initial teacher education enrolments, all students and commencements, 2013

Commencing students			
Detailed field of education	Postgraduate	Undergraduate	TOTAL
Teacher education	2,137	2,728	4,865
Teacher education: early childhood	335	3,796	4,131
Teacher education: primary	2,559	7,420	9,979
Teacher education: secondary	3,900	5,234	9,134
TOTAL	8,931	19,178	28,109

Commencing students			
Detailed field of education	Postgraduate	Undergraduate	TOTAL
Teacher education	4,113	9,664	13,777
Teacher education: early childhood	648	11,493	12,141
Teacher education: primary	4,330	24,319	28,649
Teacher education: secondary	6,209	15,604	21,813
TOTAL	15,300	61,080	76,380

Source: Department of Education (2014) *Selected Higher Education Statistics—2013 Student Data*.

The decline in commencements in 2013 is contrary to longer term trends in the field, which experienced rises in both commencements and total enrolments each year between 2005 and 2012.¹⁹⁴ Over the entire period, total enrolments increased by 22.5 per cent (compared with growth across all disciplines of 37.3 per cent).¹⁹⁵ Much of this growth was driven by higher levels of postgraduate enrolments, which have more than doubled since 2005. This reflects a broader trend towards postgraduate-level professional education, and the increased availability of Commonwealth-supported postgraduate places.

¹⁹² Students who have confirmed their initial enrolment in courses at the time of the higher education enrolment census date.

¹⁹³ Department of Education (2014), *Selected Higher Education Statistics—2013 Student Data*

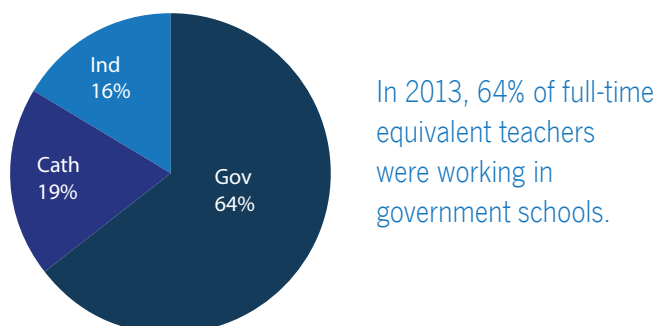
¹⁹⁴ *ibid*

¹⁹⁵ *ibid*

Appendix H: Australia's teachers

The Australian teacher workforce has a complex employment profile. It includes permanent (or ongoing) employees as well as those employed on non-ongoing short- or long-term contracts, and casual teaching staff. In 2013 there were 261,585 full-time equivalent teachers across Australia, of whom 136,017 were primary school teachers and 125,568 were employed in secondary schools.

Table 3: Full-time equivalent teaching staff in Australia, by state and sector, 2013

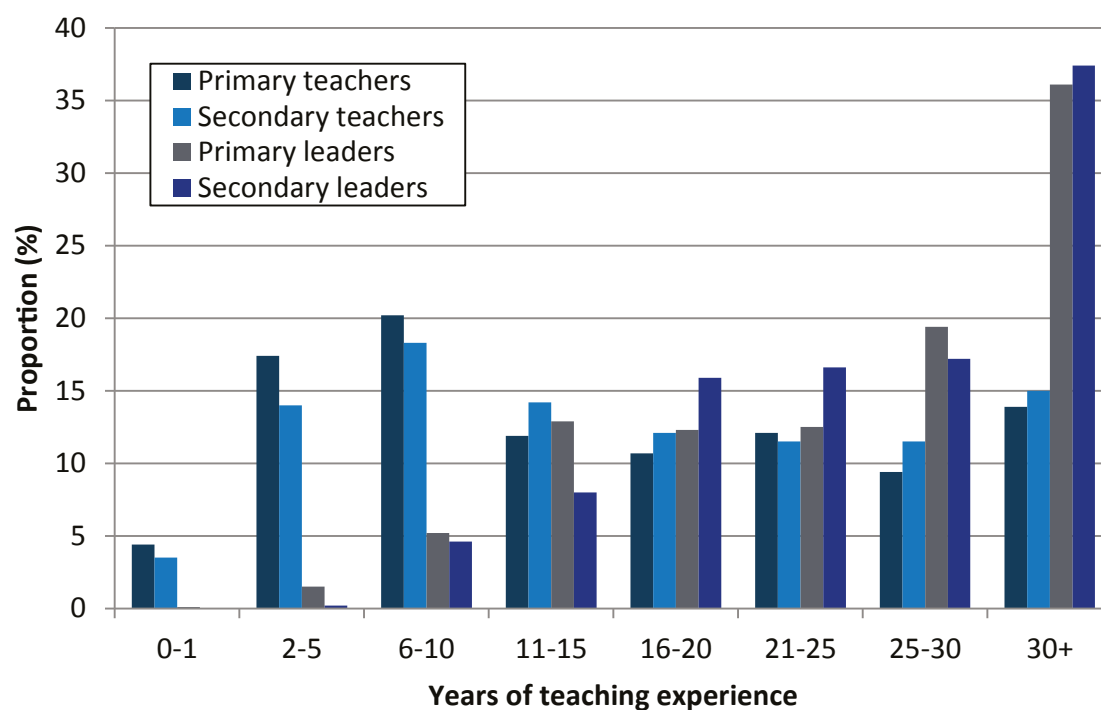


	Government		Catholic		Independent		Total	S/T share
NSW	53,907	65%	16,611	20%	12,445	15%	82,963	32%
Vic	39,960	61%	14,268	22%	11,811	18%	66,039	25%
Qld	35,181	67%	9,160	17%	8,214	16%	52,555	20%
SA	11,796	63%	3,367	18%	3,553	19%	18,716	7%
WA	17,596	64%	4,637	17%	5,085	19%	27,317	10%
Tas	4,047	69%	968	17%	825	14%	5,840	2%
NT	2,519	74%	386	11%	482	14%	3,387	1%
ACT	2,897	61%	1,132	24%	740	16%	4,769	2%
Total	167,903	64%	50,527	19%	43,154	16%	261,585	100%

Source: Australian Bureau of Statistics (2013) Schools Australia 2013, cat. no. 4221.0, Table 51a.

Note: Percentages may not add to 100 per cent due to rounding.

Figure 1: Proportions of teachers and leaders by years of teaching experience



Source: McKenzie, P., Rowley, G., Weldon, P., Murphy, M. and McMillan, J. (2014), *Staff in Australia's Schools 2013: Main Report on the Survey*, p.79

Glossary

Accreditation

Endorsement that a program meets approved standards.

Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures (Accreditation Standards)

The national approach to the accreditation of initial teacher education programs that outlines the process, requirements and standards that initial teacher education programs are assessed against.

Australian Institute for Teaching and School Leadership (AITSL)

The organisation funded by the Australian Government to provide national leadership for the Australian, and state and territory Governments in promoting excellence in the profession of teaching and school leadership.

Australian Professional Standards for Teachers (Professional Standards)

The nationally agreed set of Professional Standards that outline the expected knowledge, practice and professional engagement of teachers across the career stages of Graduate, Proficient, Highly Accomplished and Lead.

Australian Qualifications Framework

The national framework comprising all regulated qualifications in the Australian education and training system.

Australian Tertiary Admission Rank (ATAR)

A student's position in relation to their cohort. It is used by higher education providers (except those in Queensland) either on its own or in conjunction with other selection criteria, to rank and select students for admission to tertiary courses.

ATAR cut-off

In general terms, the cut-off for a course indicates the minimum ATAR that is needed for Year 12 applicant entry into a course.

Beginning teacher

A teacher who has recently graduated from an initial teacher education program and has commenced employment.

Classroom ready graduate

A qualified graduate who has the skills and knowledge for professional practice required by the Graduate level of the Professional Standards.

Commonwealth Grant Scheme

A scheme whereby the Australian Government subsidises tuition costs for higher education students across a wide range of discipline areas and qualification levels. Different units of study attract different rates of funding.

Commonwealth supported place (CSP)

A CSP is a subsidised enrolment at university. The Australian Government provides a subsidy for each student enrolled in CSP by paying part of the fees for the place directly to the higher education provider ('Commonwealth contribution') and the student pays the remainder of the fees through a 'student contribution' amount.

Early career teachers

A term used in the Staff in Australia's Schools survey that refers to those who have been teaching for five years or less.

Evidence-based teaching practice

Teaching practices or strategies that are based on research and data that is considered reliable and valid, and that can be used to support a particular idea, conclusion or decision.

Government employers

State and territory education departments responsible for the employment of government school teachers in their jurisdiction.

Graduate teacher

A teacher who has successfully completed a qualification that meets the requirements of a nationally accredited initial teacher education program.

Graduate level of the Professional Standards

The career stage within the Australian Professional Standards for Teachers that specifies the professional expectations of those graduating from accredited initial teacher education programs.

Higher education provider

Universities and higher education institutions listed in subdivision 16-B of Higher Education Support Act 2003 (HESA) and providers as determined by the Minister under section 16-35 of the HESA.

Higher education sector

Universities and other higher education providers.

Initial teacher education

Tertiary level education that prepares pre-service teachers to teach in Australian schools.

Induction

A phase of structured guidance, support and professional learning for beginning teachers.

National register of accredited programs

A national database of currently accredited teacher education programs in Australia, published on the AITSL website.

National Teaching Workforce Dataset

A dataset, published in 2014, comprising data supplied by teacher employers and registration bodies on individual teachers including teacher demographics, qualifications, registration status and current employment.

Non-government employers

Employers of teachers in the Catholic and Independent school sectors.

Pre-service teachers

Students undertaking initial teacher education programs delivered by higher education providers.

Professional experience

Formal pre-service teacher engagement with school workplaces and communities that is a requirement of all initial teacher education programs. It can include supervised teaching, internship, observations and community placements.

Programme for International Student Assessment (PISA)

A triennial international survey that evaluates education systems worldwide by testing the skills and knowledge of 15-year-old students.

Provisional registration / initial registration

A period of registration that allows beginning teachers to be employed, and during which time they will be required to undertake workplace learning and professional development to equip them to meet the requirements for full registration.

Quality Indicators for Learning and Teaching website

A website that, once developed, will present the results from the Quality Indicators for Learning and Teaching surveys for higher education to enable students to make informed decisions about their study options.

School sectors

There are the three school sectors in Australia: the government school sector; the Catholic school sector; and the Independent school sector.

Staff in Australia's Schools survey

A national survey commissioned by the Australian Government to provide a snapshot of Australian teacher workforce demographics, employment information and staffing issues. Reports of the surveys conducted in 2007, 2010 and 2013 have been published.

Teacher regulatory body

State and territory teacher regulatory authorities responsible for the regulation of the teaching profession in their jurisdiction, including teacher registration and accreditation of initial teacher education programs.

Teacher registration

The process that ensures teachers in Australian schools are appropriately qualified and suitable for employment. The requirements for registration apply to all teachers regardless of employment status (casual, temporary, permanent) and school sector (Independent, Catholic, government).

Tertiary Education Quality and Standards Agency

Australia's independent national regulator of the higher education sector, responsible for registering and assessing the performance of higher education providers against the Higher Education Standards Framework.

Trends in International Mathematics and Science Study (TIMSS)

An international assessment of student achievement in mathematics and science in years four and eight, conducted every four years.

References

- Auguste, B, Kihn, P. and Miller, M. (2010), *Closing the Talent Gap: Attracting and Retaining Top-Third Graduates to Careers in Teaching*, McKinsey & Company, viewed 18 June 2014, http://mckinseysociety.com/downloads/reports/Education/Closing_the_talent_gap.pdf
- Australian Bureau of Statistics (2013), *Schools Australia 2013 catalogue no. 4221.0*
- Australian Education Union (2008), *Beginning Teacher Survey 2007: Results and Report*, AEU, viewed 4 August 2014, <http://www.aeufederal.org.au/Publications/2008/Btsurvey07res.pdf>
- Australian Institute for Teaching and School Leadership (2011a), *Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2011b), *Australian Professional Standards for Teachers*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2012a), *Australian Teacher Performance and Development Framework*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2012b), *Certification of Highly Accomplished and Lead Teachers in Australia*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2013), *Accreditation of Initial Teacher Education Programs in Australia: Guide to the accreditation process*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2014a), *Early Teacher Development: Trends and Reform Directions*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2014b), *Induction of Beginning Teachers: A Scan of Current Practice in Australia*, AITSL, Melbourne
- Australian Institute for Teaching and School Leadership (2014c), *Initial Teacher Education: Data Report 2014*, AITSL, Melbourne
- Australian Secondary Principals Association (2007), *Beginning Teachers Survey Report (2006)*, ASPA, viewed 29 July 2014, http://www.aspa.asn.au/index.php?option=com_content&view=article&id=149:2007-survey-beginning-teachers&catid=17:beginning-teachers&Itemid=39
- Barber, M. and Mourshed, M. (2007), *How the World's Best Performing School Systems Come Out on Top*, McKinsey and Company, United States
- Bartlett, L. and Johnson, L. (2010), 'The Evolution of New teacher Induction Policy: Support, Specificity, and Autonomy', *Education Policy*, vol. 24(6), pp.847–871
- Bloomfield, D. et al (2013), *Authentic Assessment in practice settings: A Participatory Design Approach: Final Report*, Australian Teaching and Learning Council, Melbourne
- Bobis, J. et al. (2005), 'Supporting Teachers in the Development of Young Children's Mathematical Thinking: Three Large Scale Cases', *Mathematics Education Journal*, vol. 16(3), pp.27–57
- Borko, H. and Putnam, R. (1996), Learning to teach. In Berliner, D.C. and Calfee, R.C. (eds) *Handbook of Educational Psychology*, Macmillan, New York, pp.673–708
- Boud, D. (2010), *Student Assessment for Learning in and After Courses: Final Report for Senior Fellowship*, Australian Learning and Teaching Council, NSW
- British Educational Research Association and Royal Society for the Encouragement of the Arts, Manufacturing and Commerce (2014), *Research and the Teaching Profession: Building the Capacity for a Self-Improving Education System*, British Educational Research Association, London

- Buchanan, J. Prescott, A. Schuck, S. Aubusson, P. Burke, P. and Louviere, J. (2013), 'Teacher Retention and Attrition: Views of Early Career Teachers', *Australian Journal of Teacher Education*, vol. 38(3), viewed 13 August 2014, <http://dx.doi.org/10.14221/ajte.2013v38n3.9>
- Caldwell, B. and Sutton, D. (2010), *Review of Teacher Education and School Induction: First Report—Full Report*, Report to Queensland Department of Education and Training, Brisbane
- Cameron, L. (2006), *Picture This: My Lesson. How LAMS is Being Used with Pre-Service Teachers to Develop Effective Classroom Activities*. In Philip, R., Voerman, A. and Dalziel, J. (eds) *Proceedings of the First International LAMS Conference 2006: Designing the Future of Learning*, 6–8 December 2006, Sydney: LAMS Foundation, http://lamsfoundation.org/lams2006/pdfs/Cameron_LAMS06.pdf
- Cooper, J. and Alvarado, A. (2006), *Preparation, Recruitment, and Retention of Teachers*, UNESCO International Institute for Educational Planning, Paris, viewed 29 July 2014, <https://www.stcloudstate.edu/tpi/initiative/documents/preparation/preparation,%20recruitment,%20and%20retention.pdf>
- Council for the Accreditation of Educator Preparation (2013a), *CAEP Accreditation Standards*, CAEP, Washington D.C, viewed 3 September 2014, http://caepnet.files.wordpress.com/2013/09/final_board_approved1.pdf
- Council for the Accreditation of Educator Preparation (2013b), *New Accreditation Standards Adopted to Ensure Quality in Educator Preparation*, Media Release, CAEP, Washington D.C., viewed 3 September 2014, <http://caepnet.files.wordpress.com/2013/08/130829-release-caep-finalized-standards-final.pdf>
- Council for the Accreditation of Educator Preparation (2014), CAEP, Washington D.C, viewed 3 September 2014, <http://caepnet.org/about/>
- Darling-Hammond, L. Hamerness, K., Grossman, P., Rust, F. and Shulman, L. (2005), The Design of Teacher Education Programs. *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able To Do*, pp.390–441
- Darling-Hammond, L. (2006a), 'Constructing 21st-Century Teacher Education', *Journal of Teacher Education*, vol. 57(3), pp.300–314
- Darling-Hammond, L. (2006b), *Powerful Teacher Education: Lessons from Exemplary Programs*, Jossey-Bass, San Francisco, California
- Darling-Hammond, L. (2013), *Developing and Sustaining a High-Quality Teaching Force*, Report Prepared for the Global Cities Education Network, Asia Society
- Department of Education (2014), *Commonwealth Grant Scheme Guidelines*, <http://education.gov.au/commonwealth-grant-scheme-cgs>
- Department of Education (2014), *Selected Higher Education Statistics—2013 Student Data*, viewed 29 July 2014, <http://education.gov.au/higher-education-statistics>
- Department of Education (2012), Customised data from the Higher Education Statistics Collection, Australian Government Department of Education, Canberra, viewed 29 July 2014, <http://education.gov.au/higher-education-statistics>
- Department of Education (2014), *Higher Education Statistics: 2013 Special Courses*, Australian Government Department of Education, Canberra, viewed 29 July 2014, <http://docs.education.gov.au/node/35973>
- Department of Education, Science and Training (2004a), 'Teachers Enhancing Numeracy'
- Department of Education, Science and Training (2007), *Australian School Science Education National Action Plan 2008–2012*, Volume 2, Australian Government, Canberra, Australia
- Department of Employment (2014), *Australian Labour Market Update—January 2014 Hot Topic: Accountants, Primary and Secondary School Teachers*, Australian Government Department of Employment, viewed July 16 2014, <http://docs.employment.gov.au/node/33753>
- Dobson, I. and Skuja, E. (2005), 'Secondary Schooling, Tertiary Entry Ranks and University Performance', *People and Place*, vol. 13(1), pp.53–62

- Donnelly, K. and Wiltshire, K. (2014) *Review of the Australian Curriculum Final Report*, Australian Government Department of Education, <http://www.studentsfirst.gov.au/review-australian-curriculum>
- Education and Training Committee (2005), *Step Up, Step In, Step Out: Report on the Inquiry into the Suitability of Pre-Service Teacher training in Victoria—Final Report*, Parliament of Victoria, Victoria, Australia
- Ernst and Young (Willet, M., Segal, D. and Walford, W.) (2014), *National Teaching Workforce Dataset: Data Analysis Report 2014*
- Finnish National Board of Education, http://www.oph.fi/english/education_system/teacher_education
- Glazerman, S. et al. (2010), *Impacts of Comprehensive Teacher Induction: Final Results from a Randomised Controlled Study* (NCEE 2010-4027), National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, United States Department of Education, Washington, D.C., <http://ies.ed.gov/ncee/pubs/20104027/pdf/20104027.pdf>
- Greenberg, J., McKee, A. and Walsh, K. (2013), 'Teacher Prep Review: A Review of the Nation's Teacher Preparation Programs', *National Council on Teacher Quality*
- Griffin, P. (ed.), (2014), *Assessment for Teaching*, Cambridge University Press, Melbourne, Australia
- Hattie, J. (2003), *Teachers Make a Difference: What is the Research Evidence?*, Keynote presentation at Building Teacher Quality: The ACER Annual Conference, Melbourne, Australia
- Hattie, J. (2005), *What is the Nature of Evidence that Makes a Difference to Learning?*, Australian Council for Educational Research, viewed 18 June 2014, http://research.acer.edu.au/research_conference_2005/7/
- Hattie, J. (2009), *Visible Learning—A Synthesis of Over 800 Meta-Analyses Relating to Achievement*, Routledge, New York
- Hattie, J. and Bowles, T. (2013), 'A Winning Formula: How to Pick the Best Teachers', *The Conversation*, viewed 18 June 2014, <http://theconversation.com/a-winning-formula-how-to-pick-the-best-teachers-20721>
- Hay Group (2013), *Building the Right Foundation: Improving Teacher Induction in Australian Schools*, report commissioned by the Australian Institute for Teaching and School Leadership, Melbourne
- House of Representatives Standing Committee on Education and Vocational Training (2007), *Top of the Class: Report on the Inquiry into Teacher Education*
- Hudson, P, Spooner-Lane, R. and Murray, M. (2013), 'Making Mentoring Explicit: Articulating Pedagogical Knowledge Practices', *School Leadership & Management*, vol. 33(3), pp.284–301
- Ingersoll, R. and Strong, M. (2011), 'The Impact of Induction and Mentoring Programs for Beginning Teachers: A Critical Review of the Research', *Review of Educational Research*, vol. 81(2), pp.201–233
- Ingvarson, L. and Rowe, K. (2007), *Conceptualising and Evaluating Teacher Quality: Substantive and Methodological Issues*, paper presented at the Economics of Teacher Quality Conference, Australian Council for Educational Research, Canberra, Australia
- Ingvarson, L., Reid, K., Buckley, S., Kleinhenz, E., Masters, G. and Rowley, G. (forthcoming), *Best Practice Teacher Education Programs and Australia's Own Programs*, Australian Council for Educational Research
- Jensen, B., Hunter, A., Sonnemann, J. and Burns, T. (2012), *Catching Up: Learning From the Best School Systems in East Asia*, Grattan Institute, Melbourne, Australia
- Kearney, S., (2010), *Understanding the Need for Induction Programmes for Beginning Teachers in Independent Catholic Secondary Schools in New South Wales*, paper presented at the Faculty of Education and IERI HDR Conference, University of Wollongong, 12 November 2010
- Kingston Primary School (2014), *Kingston Primary School—Internship Program*, viewed 9 September 2014, <http://www.kingstonprimary.wa.edu.au/programs/internship-program/>
- Klein, M. (2008), *Pre-service Teachers and Numeracy Education: Can Post Structuralism Contribute?*, in proceedings of the 31st Annual Conference of the Mathematics Education Research Group of Australasia, Brisbane, Australia, pp.317–322

- Lam, S. and Yin-Kum Law (2008), 'Open Attitudes, Attribution Beliefs, and Knowledge of Hong Kong Teacher Interns in an Era of Education Reform', *Asia Pacific Journal of Education*, vol. 28(2), pp.177–187
- Littlewood, S. et al. (2005), 'Learning in Practice—Early Practical Experience and the Social Responsiveness of Clinical Education: Systematic Review', *British Medical Journal*, vol. 331(7513), pp. 387–391
- Masters, G. (2013), *Reforming Educational Assessment: Imperatives, Principles and Challenges*, Australian Educational Review no. 57, Australian Council for Educational Research, ACER Press, Camberwell, Victoria
- Maynes, N. (2012), 'Examining a False Dichotomy: The Role of Direct Instruction and Problem-Solving Approaches in Today's Classrooms', *International Journal of Business and Social Science*, vol. 3(8), pp.40–46
- McCormack, N. (2005), *Mentoring the Ongoing Professional Learning of Early Career Teachers*, conference paper presented at 33rd Annual Australian Teacher Education Association Conference, Surfers Paradise, Australia
- McKenzie, P., Santiago, P., Sliwka, P. and Hrioyuki, H. (2005), *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, OECD
- McKenzie, P., Rowley, G., Weldon, P., Murphy, M. and McMillan, J. (2014), *Staff in Australia's Schools 2013: Main Report of the Survey*, Australian Council for Education Research
- McLean Davies, L., Anderson, M., Deans J., Dinham S., Griffin P., Kameniar B., Page J., Reid C., Rickards, F., Tayler, C. and Tyler, D. (2013), Masterly Preparation: Embedding Clinical Practice in a Graduate Pre-Service Teacher Education Programme, *Journal of Education for Teaching: International Research and Pedagogy*, 39(1) pp.93–106
- Melbourne Graduate School of Education (2013), *Melbourne Graduate School of Education Corporate Review*, viewed 5 August 2014, http://education.unimelb.edu.au/___data/assets/pdf_file/0009/717345/Corporate_Review_6.0.pdf
- Menter, I., Hulme, M., Elliott, D. and Lewin, J. (2010), *Literature Review on Teacher Education in the 21st Century*, Scottish Government, Scotland
- Milton, M., Rohl, M. and House, H. (2007), 'Secondary Beginning Teachers' Preparedness to Teach Literacy and Numeracy: A Survey', *Australian Journal of Teacher Education*, vol. 32(2)
- Mullis, I., Martin, M., Foy, P., and Arora, A. (2012), *TIMSS 2011 International Results in Mathematics*, International Association for the Evaluation of Educational Achievement, Boston
- National Council on Teacher Quality (2014), *2014 Teacher Prep Review*, <http://www.nctq.org/teacherPrep/review2014.do>
- National Inquiry into the Teaching of Literacy (2005), *Teaching Reading: Report and Recommendations*, Department of Education, Science and Training, Canberra, Australia
- National Institute of Education, Singapore (2010), *A Teacher Education Model for the 21st Century (TE21)*, Nanyang Technological University, viewed 21 July 2014, www.nie.edu.sg/files/TE21_Executive%20Summary_14052010%20-%20updated.pdf
- National Institute of Education, Singapore (2014), *Office of Education Research: About OER*, viewed 9 September 2014, <http://www.nie.edu.sg/office-education-research/about-oer>
- New Zealand Teachers Council (2011), *Professional Learning Journeys Guidelines for Induction and Mentoring and Mentor Teachers*, viewed 2 September 2014, <http://www.teacherscouncil.govt.nz/sites/default/files/Guidelines%20for%20Induction%20and%20Mentoring%20and%20Mentor%20Teachers%202011%20english.pdf>
- New South Wales Department of Education and Communities (2013), *Great Teaching, Inspired Learning: A Blueprint for Action*, NSW Government, <http://www.nswteachers.nsw.edu.au/great-teaching-inspired-learning/blueprint-for-action/resources/>
- New South Wales Board of Studies, Teaching and Education Standards (2014) *A Framework for High-Quality Professional Experience in NSW Schools*, <http://www.nswteachers.nsw.edu.au/taas--schools/principals-supervisors/supervising-teacher-education-students/>

- New South Wales Department of Education and Communities (2014), *Great Teaching Inspired Learning*, NSW Department of Education and Communities, NSW, viewed 21 August 2014, <http://www.dec.nsw.gov.au/our-services/schools/great-teaching-inspired-learning>
- Numeracy in Preservice Teacher Education Working Party (2005), *Numeracy in Teacher Education: The Way Forward in the 21st Century*, Queensland Board of Teacher Registration, Toowong, Brisbane, Australia
- O'Brien, P., Goddard, R. and Keeffe, M. (2008), *Burnout Confirmed as a Viable Explanation for Beginning Teacher Attrition*, In AAARE 2007: Australian Association for Research in Education Annual Conference 2007, Research Impacts: Proving or Improving?, 25–29 November 2007, Fremantle, Western Australia
- OECD (2011), *Lessons from PISA for the United States, Strong Performers and Successful Reformers*, OECD Publishing, viewed 22 August 2014, http://www.oecd-ilibrary.org/education/lessons-from-pisa-for-the-united-states_9789264096660-en
- OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, OECD Publishing
- O'Neill, S. and Geoghegan, D. (2011), 'First Year Pre-Service Teachers' Views about Literacy: Exploring the Breadth and Depth of their Pedagogical Needs', *International Journal of Pedagogies and Learning*, vol. 6(3), pp.187–205
- Performance Assessment for California Teachers (PACT) 2014, *Performance Assessment for California Teachers*, viewed 6 August 2014, http://www.pacttpa.org/_main/hub.php?pageName=Home
- Productivity Commission 2012, *Schools Workforce, Research Report*, Canberra
- Productivity Commission (2014), Report on Government Services: Vol. B, Chapter 4 School education attachment tables
- Queensland College of Teachers (2012), *An Investigation of Best Practice in Evidence-Based Assessment within Preservice Teacher Education Programs and Other Professions*, Report of Research Commissioned by the Queensland College of Teachers, Queensland
- Queensland College of Teachers (2013), *Attrition of Recent Queensland Graduate Teachers—Report*, Queensland College of Teachers, Queensland
- Queensland Department of Education, Training and Employment (2012) *A Fresh Start—Improving the Preparation and Quality of Teachers for Queensland Schools*, Queensland Department of Education, Training and Employment, Queensland, Australia, viewed 21 August 2014, <http://flyingstart.qld.gov.au/SiteCollectionDocuments/A-Fresh-Start-strategy.pdf>
- Queensland Department of Education, Training and Employment (2013) *A Fresh Start: Professional Experience Partnership Agreements Fact Sheet*, Queensland Government, http://flyingstart.qld.gov.au/SiteCollectionDocuments/factsheet-fresh-start_Prof-Exp-Agreements.pdf
- Queensland Department of Education, Training and Employment (2013) *A Fresh Start: Talent Identification Framework Fact Sheet*, Queensland Government, http://flyingstart.qld.gov.au/SiteCollectionDocuments/factsheet-Fresh-Start_Talent-ID.pdf
- Richardson, S. and Friedman, T. (2010), *Australian Regional Higher Education: Student Characteristics and Experiences*, Australian Council for Educational Research
- Rockoff, J. (2008), *Does Mentoring Reduce Turnover and Improve Skills of New Employees? Evidence from Teachers in New York City*, Working Paper No. w13863, National Bureau of Economic Research, Cambridge, Massachusetts
- Rockoff, J., et al (2011), 'Can You Recognize an Effective Teacher When You Recruit One?', *Education Finance and Policy*, vol. 6(1), pp.43–74
- Rowe, K. (2006), *Effective teaching practices for Students With and Without Learning Difficulties: Constructivism as a Legitimate Theory of Learning AND of Teaching?* http://research.acer.edu.au/learning_processes/10/
- Schmidt, H. and Rikers, R. (2007), 'How Expertise Develops in Medicine: Knowledge Encapsulation and Illness Script Formation', *Medical Education*, vol. 41(12), pp. 1133–1139
- Standing Committee on Education and Vocational Training (2007), *Top of the Class: Report on the Inquiry into Teacher Education*, Australian House of Representatives, Canberra

Tatto, M. (2013), *Paper 2: The Role of Research in International Policy and Practice in Teacher Education*, British Educational Research Association, London

Tertiary Education Quality and Standards Agency (2014) TEQSA snapshot May 2014, <http://www.teqsa.gov.au/sites/default/files/TEQSAsnapshotMay2014.pdf>

Thomson, S., De Bortoli, L. and Buckley, S. (2013), *PISA 2012: How Australia Measures Up*, Australian Council for Educational Research, Victoria

Thomson, S., Hillman, K. and Wernert, W. (2012), *Monitoring Australian Year 8 student achievement internationally: TIMSS 2011*

United States Department of Health and Human Services (2000); Report of the National Reading Panel: TEACHING CHILDREN TO READ : An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction, Executive Summary, viewed 3 October 2014, www.nichd.nih.gov/publications/pubs/nrp/Pages/findings.aspx

Ure, C., Gough, A. and Newton, R. (2009), *Practicum Partnerships: Exploring Models of Practicum Organisation in Teacher Education for a Standards-Based Profession*, Australian Learning and Teaching Council, Sydney, Australia

Victorian Department of Education and Early Childhood Development (2012), *New Directions for School Leadership and the Teaching Profession—Discussion Paper*, Victorian Department of Education and Early Childhood Development, Victoria

Victorian Department of Education and Early Childhood Development (2013), *From New Directions to Action: World-Class Teaching and School Leadership*, Victorian Department of Education and Early Childhood Development, Victoria, viewed 21 August 2014, <http://www.education.vic.gov.au/Documents/about/department/teachingprofession.pdf>

Vieluf, S., Kaplan, D., Klieme, E. and Bayer, S. (2012), *Teaching Practices and Pedagogical Innovation: Evidence from TALIS*, OECD Publishing

Watson, J. (2008), *Critical Numeracy in Context*, Transcript of Video Presentation for NSW National Literacy and Numeracy Week, viewed 18 July 2014, http://www.nlnw.nsw.edu.au/videos08/critical_numeracy/pdf/jane_watson.pdf

Western Australian Department of Education (2014), *The Graduate Teacher Induction Program*, Western Australian Department of Education, WA, viewed 22 August 2014, <http://det.wa.edu.au/professionallearning/detcms/navigation/for-teachers/graduate-teachers/>
http://www.nlnw.nsw.edu.au/videos08/critical_numeracy/pdf/jane_watson.pdf

Wyatt-Smith, C. and Gunn, S. (2007), *Evidence-Based Research for Expert Literacy Teaching*, Educational Policy and Research Division, Melbourne, Victoria

Young, L. (2014), 'Trainee Teachers Take to School', *The Age*, 9 June 2014, Melbourne, Australia, p.28

